Trade Ef. B. Vol 27.

POISON DETECTED:

OR

FRIGHTFUL TRUTHS;

AND

Alarming to the *Britiſh* Metropolis.

IN A

TREATISE on BREAD;

AND THE

ABUSES practiſed in making that FOOD,

As occaſioning the decreaſe and degeneracy of the people; deſtroying infants; and producing innumerable diſeaſes.

SHEWING ALSO,

The virtues of GOOD BREAD, and the manner of making it.

To which is added,

A CHARGE to the confederacy of bakers, corn-dealers, farmers, and millers; concerning ſhort weight, adulterations, and artificial ſcarcities; with eaſy methods to prevent all ſuch abuſes.

By MY FRIEND, a Phyſician.

If thy brother wants bread, wilt thou give him a ſtone? or if he aſks a fiſh, wilt thou give him a ſerpent?

JESUS CHRIST.

Dicere vix poſſis haud multi talia plorent. JUVENAL

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MDCCLVII.

[Price One Shilling and Six-pence.]

DEDICATED

TO THE

PEOPLE

OF THE

Metropolis of *Great Britain*,

By

Their devoted Well-wiſher,

MY FRIEND.

ERRATA.

Page 2. line 6, for *ungrate* read *ungratefully.* p. 11. l. 4. for *aſceſſent* r. *acceſcent*, *&c.* p. 28. l. for *lonegvity* r. *longevity.* p. 37. l. 22. for *he* r. *it.* p. 39. l. 6. for *principis* r. *princeps.* p. 45. l. 33. for *Lancaſhire* r. *Lancaſter.*

PREFACE

TO THE

CITY.

A VILLAGE was once prodigiously peſtered with rats, they were the gray-colour'd kind; indeed their multitude was innumerable. A youth who had obſerved them with ſingular diligence, adverti ſed the neighbourhood that rats-bane had been diſtributed in ſundry parts; and that the vermin had not only eat of it, but had carried away on their feet and whiſkers much of the poiſon, which, he was aſſured, was diſperſed in the common fountain of the place, which was certainly contaminated, for they drank

and waſhed themſelves in the ſpring. *'Tis poiſon'd*, he ſaid, *refrain!* Some of the villagers ſcorn'd and derided the kind precaution—They drank—The fatal conſequences juſtified the young man's aſſertion— and they who had ungrate- ſcoffed him, lingered away, unlamented, in diſeaſes, reproach, and repentance.

OF

BREAD,

AND THE

Abuſes of BAKERS.

———*Hoc vincite, cives,*
Et prohibite nefas.——— VIRG.

A MIND matured by philoſophy, whoſe chain of reaſon is ſtrong enough to combine ideas, deep enough to fathom the abſtruſe deductions of concatenated efficients; and whoſe vigor of intellect, and keenneſs of ſenſe, is able to inveſtigate ſucceſſive cauſes that were before unknown, from a minute obſervance, and diligent purſuit of obvious effects; is frequently convinced by a ſmall portion of reflection, that all the malignant productions, and morbiferous qualities, in this ſublunary globe, are not more deſtructive and injurious to mankind, than man alone. Run over the gloomy

roll of horrors; earthquakes, inundations, tempeſts, famine, lightening, fiery eruptions, venomous or ſavage animals, and deleterious plants; they will be found leſs baleful to human exiſtence than the excentricities of ambition, the ſiniſter deviations of nefandous art, or the ſecret craft of impetuous avidity. Nay, many of thoſe very calamities which the miſguided tongues of plebeian ignorance and ſuperficiality ſo laviſhly and clamorouſly charge upon elements, ſeaſons, climates, ſituations, and natural contingencies, afford a more pleaſing contemplation to the percipient eye of wiſdom. Yet it is ſurpriſing how frequent and copious our invectives and complaints are againſt the ways of providence; tho' we are mighty careful of offending man by an expoſure of his delinquencies: as if fear of the vengeance of our fellows prevailed over our reſpect, love, and gratitude due to heaven; or as if we had a more acute perſpicacity to remark, and more boldneſs to declaim againſt, the ſuppoſed errors above us, than thoſe that are upon our own level; or as if the longipatient mercy of providence had made us, as we really have great reaſon to be, leſs fearful of him, than we are of each other. An egregious truth, which is manifeſted by nothing ſo evidently as the ſubject which dictates theſe ſheets. Can it be ſuppoſed that the common food which we live upon may poſſibly be mix'd with malignant qualities, and ourſelves eſcape injury from it? Or can it be doubted, that the native conſtitutions of any place habitually conform themſelves to the diſpoſition of their natural climate, country, and other contingencies? When then we ſee the inhabitants of a place in health, longevity, vigor, comelineſs of feature, and numbers manifeſtly degenerated

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and decayed from their progenitors, we are apt to conſider the cauſe of that ſtrange defection: 'tis hard to charge it upon providence, which we are certain guides the rotation of ſeaſons, ſtill in the original circle of their primæval ſimplicity. Can we think ourſelves afflicted with more intemperate ſeverities of elements, and inclemencies of ſeaſons, than our more beloved anceſtors? No, providence is the ſame, though man is changed.

Applying theſe reflections to the metropolis of our country: its obvious decreaſe of people, degeneracy of conſtitution, and frequency of diſeaſes, will ſoon be charged to ſome other account than a bad air, nay even the depravity of manners is inadequate to the charge; for I would not deny libidiniſm a ſhare in producing thoſe effects, but it is far from maintaining a principal one. And though leſs moral, it will be more phyſical and rational to account for it other ways. For can we ſuppoſe a city-fountain to be privily poiſoned, and the inhabitants to eſcape the miſchief?

Tea, detrimental alone, is frequently coloured with copperas; wine is purified with drugs of as noxious properties, or roughened with pernicious aſperants; veal is whitened with chalk, and puffed up with, perhaps, the unwholſome breath of the diſtempered butcher; the brazier may poiſon us with the lethiferous fuſion of arſenical metals in tin with which he lines our culinary veſſels; our beer, the common beverage of the populace, is perniciated with the baleful properties of vitriol, or unwholſome intoxicants: but, above all, our bread, the univerſal baſis of

the food of all ranks and ages of people, is mixed with moſt noxious and morbiferous matters. Of theſe, in their effects, we propoſe to give a full expoſure. We may expect indeed to incur the confederate enmity of the abuſers, which will ſoon collect itſelf, and perhaps break forth upon us in ſome furious public invective. But we ſhall eſteem their moſt angrily rancorous indignation as much more inoffenſive than their loaves, and ſhall rather with ſport than concern ſee them mouth-maul, worry, and break their teeth upon the ſtone we throw at them. Patriotiſm ſtimulates it, conſcience urges it, 'tis to defend the public, to expoſe and exterminate the artifices of the bakers detrimental avidity.

The abuſes of bakers have by wiſe men been thought of ſufficient importance and evil influence, not only on the property but the health of people, to draw upon them penalties more or leſs ſevere, from the juriſdiction of all civilized governments; and the malpractices of theſe men have, from almoſt unchronicled ages, irritated the public obloquy of vulgar deriſion. But perhaps no place was ever more juſtifiable for the reproaches with which it has branded the fronts of particular villainies, than London, at preſent, for thoſe excited by the frauds of confederate bakers. So, is not that metropolis to be admired for the penalties decreed againſt their pernicious artifices? Yet the ſcourge of popular mockery, united with the wholſome proviſion of penal ſtatutes, are defied and outbraved by the perpetrators of thoſe conſummate iniquities: though every ſenſible man implores a remedy of ills diſgraceful to his country, detrimental to himſelf and his family, oppreſſive to the poor,

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and injurious to all ranks and ages of people; though the populace objurgate with declamatory aſſeverations of the fraudulent facts; though the laws inflict penalties upon, and though the impoſers are unable to deny the bare-faced crimes; though the public papers are filled with daily admonitions and expoſitory invectives againſt them; nevertheleſs the bakers perſevere in their lucrative arts, and manifeſt the ineffectuality of ſhame, equity, and conviction, to the reformation of inveterate villainy. Surely then the bad conſequences of their practices, both to the private and public conſtitution, have been inſufficiently conſidered, too little expoſed, and leſs underſtood; to make them deteſted, dreaded, deprecated, redreſſed.

Good bread, that moſt ſubſtantial and principal part of human food, ought to be compoſed of flour well kneaded with the lighteſt water, ſeaſoned with a little ſalt, fermented with fine yeaſt or leaven, and ſufficiently baked with a proper fire. But inſtead of this wholſome bread, the craft of iniquitous bakers has found out a more advantageous method of making this food, by the miſchievous admixture of many pernicious ingredients, to increaſe its weight, and deceive the buyer by its fraudulent fineneſs. Lime, chalk, alum, &c. mixed up with flour, yeaſt, ſalt, and leaven, in certain proportion, are conſtituent parts of that moſt common food, to which in the city of London the deluded inhabitants give the name of Bread.

Alum, as a medicine, is one of remarkable contraindication, and every phyſician knows how hazardous ſuch drugs are, promiſcuouſly and

prepoſterouſly taken; it is a very powerful aſtringent and ſtyptic, occaſioning heat and coſtiveneſs; the frequent uſe of it cloſes up the mouths of the ſmall alimentary ducts, and by its corroſive concretions, ſeals up the lacteals, indurates every maſs it is mixed with upon the ſtomach, makes it hard of digeſtion, and conſolidates the fæces in the inteſtines, ſo as to bind up the paſſages which ſhould be open.

It therefore prevents the nouriſhment which we expect from bread, and induces diſorders which we ſhould not ſuſpect from a food reputed not only harmleſs but wholſome. Nay, experience convinces me, that any animal will live longer in health and vigor upon two ounces of good and wholſome bread, than upon one pound of this adulterated compound. A conſideration which may be uſeful, if attended to in the times of ſcarcity.

Alum is a good medicine properly adminiſtered; but when we remember it to be an extract from human excrement, the delicate part of the world will readily reſign its uſe in their common food, or even in phyſic, to its more proper uſes in dying of ſtuffs and dreſſing of leather. Even the moſt ſtercorian ſtomach faſtidiates the naſtineſs of a food made up with ſuch a diſguſtful admixture. Nor is it uſed even in ſtriking a colour, without manifeſt danger to the health of the dyers; and if it has that effect upon the artificer, who uſes it only in his buſineſs, how much muſt he ſuffer from it, who daily receives it internally. This will give us a reaſon for the frequency of the acid acrimony, and the many diſorders which it produces, very troubleſome and dangerous to the animal œconomy;

as burning acid eructations, with an inſatiable appetite, though not nouriſhed by the food it voraciouſly devours.

Cardialdia, or heart-burn, produced by a ſtimulation of the cardia, or left orifice of the ſtomach, which is endued with a moſt exquiſite ſenſe by the acid juices contained in the ſtomach.

Coagulation of the aliment taken into the ſtomach, eſpecially if it happens to be milk, which brings on pains, flatulencies, and ſpaſmetic contractions of the inteſtines, but particularly of the ileum; theſe ſymptoms may even ariſe to that degree of violence, as to conſtitute that diſtemper which is called Cholera Morbus; and which, without a great deal of care, will ſometimes be ſo acute as in a very few hours to prove fatal.

As theſe acidities mix with the bile in the duodenum, they muſt neceſſarily alter its nature, and render it inactive; and as the bile has a conſiderable ſhare in aſſimilating the aliment, and converting it into good chyle, this aſſimilation muſt be prevented in proportion as the bile, by reaſon of any foreign admixture, deviates from its own nature. The ſame holds good in regard to the pancreatic juice and the ſaliva, both which, in a natural ſtate, contribute to the digeſtion of the aliment, and the converſion of it into a balſamic chyle, capable of entering the lacteal veſſels and mixing with the blood, without communicating to it any acrimony either alcaline or acid. But when the action of the above-mentioned juices is impaired by an acid in the Primæ Viæ, an acid chyle is formed, and the very excrement

ment diſcharged from the inteſtines, betrays an acid in the ſmell.

But chiefly when the glands and glandular ſecretions are affected, the caſe becomes much more difficult and dangerous. From the ſtomach and ſmall inteſtines, this acidity by ſlow degrees is propagated to the receptacle of the chyle, and from thence to the blood, and finally to all the humours ſeparated from it.

So likewiſe when the blood becomes acidulated, obſtructions are frequently formed in the capillary veſſels, producing troubleſome itchings of the ſkin; puſtules, very frequent after eating great quantities of fruit; ulcers, which are pale, ſlow in their progreſs, and difficult to heal.

Hence alſo coagulations of the blood, which render it unfit for circulation, and conſequently for nutrition, and the uſes of the animal œconomy.

But the acid acrimony has yet a worſe effect when it reaches the nerves, nervous membranes, and the brain; for then by ſtimulating theſe ſenſible parts, it is productive of convulſions, epileptic fits, an irregular circulation of the blood, and at laſt death, of which children afford too frequent examples.

From what has been ſaid with reſpect to an acid abounding in animal bodies, many diſorders to which ſedentary people and women of a lax habit are liable, may be diſcovered and underſtood: but it will be particularly uſeful

ful in attending to the diſtempers to which children are ſubject, in whom all the cauſes of an acid acrimony ſeem to contribute to their deſtruction, as aſceſſant aliment, laxity, and want of motion.

Poor people, whoſe food is principally of the farinaceous kind of vegetables, and eſpecially ſuch as eat but little fleſh meat, are particularly obnoxious to theſe diſorders, and would be much more ſo without the ſtrong exerciſe they generally uſe; for exerciſe, by ſtrengthening the animal fibres, and promoting the digeſtion of the aliment and aſſimilation of the chyle, prevents an acid acrimony from prevailing in the juices.

The fluid which circulates thro' the veſſels, in order to be fit for nutrition, ought to be mild and deſtitute of acrimony, but where acidity prevails it is very far from being accommodated to that ſalutary purpoſe; inſtead of nouriſhing, it ſtimulates, abrades, and carries away a part of the ſolids, corrodes, deſtroys, and devellicates the extremely minute veſſels, to which thoſe of the brain are above all others ſubject; whence a train of thoſe frightful ſymptoms which are uſually called nervous, as delirioufneſs, convulſions, epilepſies, hyſterics, comas or watchfulneſs.

All theſe bad conſequences are ſucceſſive to the frequent internal uſe of aſceſſant foods, as all farinaceous ones are, but more eſpecially when mixed up with alum; which by its corroſive cruſt ſtops the entrance of the chyle into the lacteals, whilſt its acrimony erodes the alimentary ducts.

Some people may ſay, that as a ſtyptic and acid no mixture can be more proper, as it muſt be of ſingular prevalence againſt diſorders proceeding from putrid alcaleſcence; but any good effects will be defeated by its conſtant uſe, and only its ill ones prevail; for it will injure where acids are noxious; and will prevent their utility where they ſhould be ſerviceable. Cuſtom enables the Turk to ſwallow as much opium as would deſtroy ſeveral men who never uſed that drug; and the poiſon taken by the king of Pontus is well known. Perhaps this may be turned upon me to put by my argument againſt the uſe of alum. Cuſtom it may be ſaid will make even alum innoxious: but let us not forget how many infants and ſtrangers unhabituated to this baleful mixture, muſt receive deſtruction from their firſt uſe of that drug.

Alum alſo from its exceſſive drying quality is to be imputed with no leſs danger than what it acquires from its aſceſſancy, for as its acidity cloſes up the mouths of the lacteals and lubricating glandules, ſo by its drying power it acquires accumulated force of malignancy. Theſe two qualities combined are more dangerous than ſeparate, for the one compreſſes the veſſels of the inteſtines, the other abſorbs the lixivial juices which nature prepared to lubricate and ſoften the paſſages, and thus hardens their membranous tender contexture, and conſolidates their contents, ſo that eroſions and obſtructions are formed, productive of fevers, vertigos, dizzyneſs, flatulences, cholics, and hectics, inducing conſumptions, for which our iſland is no leſs remarkable than for the hypocondria; diſorders which in reality ſeem rather occaſioned by theſe abuſes

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in diet, than from any ſingular or evident malignancy in the climate, which is I believe the moſt temperate and homogeneal of any in Europe; for as it is an iſle, we are neither ſcorched with exceſſive heats in the ſummer, nor frozen with intolerable cold in the winter ſeaſon.

But thoſe people, who labour under many diſorders in which ſtyptics and aſtringents are inimicable, and ſometimes attended with fatal effects, are particularly eminent ſufferers by this bread mixed with alum. In many diſeaſes it is an abſolute degree of poiſon; to all acute diſorders indeed it is extremely perilous, eſpecially in the gout, rheumatiſm, cholic, and venereal complaints; nor is it likely to prove very friendly to chronic affects. Hence perhaps we may account for the melancholic hypocondria, hyſterics, and other nervous calamities being ſo frequent in England, eſpecially in the metropolis; inſomuch that ſome of them are by foreigners eſteemed endemic to our iſle, though almoſt unknown in thoſe places where they have not the deteſtable art of mixing their food with poiſonous matters. Such aſtringent diet is particularly prejudicial in the hoſpitals, and all other places where the patients are afflicted with inveterate ſcrofulas, malignant ulcers, or any other cacochemical ſcurvies, which it is not unuſual to attack with mercury, antimony, draſtic medicines, which add moment to the blood, impetuate the velocity of the animal circulation by their ponderous and ſtimulating force, and propel and deobſtruate the oppilations; in ſuch caſes then as theſe, I appeal to the faculty, if a long habit and uſe of ſtyptic and aluminous diet is not found to be of the moſt dangerous effects; inſomuch that all acids are to be

be avoided and inhibited, as inductors of various ill conſequences, enſuing the frequent uſe and repetition of thoſe herculean medicines: for it is a common uſance before the adminiſtration of mercurials, to prepare the veſſels of the body for their reception by balſamics and alexipharmic anodynes, to open their texture and lubricate their tubes, that the deobſtruating force, and the impacted matter together may the more eaſily ſlide through their ſoupled capacities, ſtave off the irriſiſtable violence of the medicine, which, without ſuch a preparation, might endanger the tender coats of the veſſels of a more delicate texture, lacerate and erode their fine fabric, and greatly diſtreſs and harraſs the nervous ſyſtem, inducing paralas, palſies, tumors, flutterings, and even ſometimes hæmorrhages, bringing on conſumptions; and this is the only plauſible reaſon to be aſſigned for the more frequent bad conſequences attending the uſe of theſe medicines in London than in other parts of the world, as we have often remarked, which would be much leſs dangerous was the patient forbidden the uſe of ſuch bread as is whitened by artful abuſes: for though theſe medicines, judiciouſly adminiſtered, are the moſt noble and ſpecific of any in the Materia Medica, and though our phyſicians are the moſt perfectly ſkilled of all others in their powers and virtues, yet this one bad article, occaſioned by the villainy of the baker, often caſts unmerited reproach upon the moſt worthy profeſſor of the healing ſcience, and brings an unjuſt diſlike upon the medicine he preſcribes. But it is not the phyſician or the medicine are culpable; for often ſome latent quality may defeat the deſigns of the one, and prevent or counteract the ſpecific power of the other: or, though it may not intirely

tirely fruſtrate the attempt in the particular diſeaſe; yet may it induce a ſeries of conſequential calamities, as is often the caſe with reſpect to the medicine in queſtion: for though the phyſician cautiouſly prepares the frame for its reception in its full virtue and efficacy, yet the aluminous aſtringents and fiery adſiccants impoſed upon the patient with his daily bread, unhinge the phyſician's deſign, and diſconcert his meaſures, and bring on the events he was ſo careful to guard againſt, in defiance of his precautions. For it muſt be remembered, as it has been ſaid, that alum contracts the lites of the veſſels, and indurates their coats, ſo as to make them more liable to injury from the requiſite ptyalizm, which, though it may eradicate one diſeaſe, too often ſubſtitutes another in its room, though the phyſician exerted his beſt endeavour to ward off the threatened evil.—In ſhort, the villainy of the baker confounds and diſappoints the beſt formed deſigns of the wiſeſt phyſician.

But it is not alum alone that ſuffices the lucrative iniquity of bakers to impoſe upon us; but there is alſo added a conſiderable portion of lime and chalk; ſo that if alum be prejudicial alone, what muſt be the conſequences of eating our bread mingled with alum, chalk, and lime?

Lime and alum engender an acrimony which erodes the bowels and inteſtines, if they are not defended, or its ſpiculæ ſheathed by the lubricating oligenous pituite provided for ſuch purpoſes; but the uſe of that proviſion is defeated by this diabolical compound; for the abſorbent quality of chalk, and the fiery effects of lime, entirely deſtroy that lixivium.

So

So that if the chalk obſtructs or impacts the cavities of the veſſels, lime dries up the juices prepared to diſſolve and pretermit ſuch obſtructions. —And, laſtly, alum completes the deſtruction, by contracting the capacity of the veſſels, and impriſoning thereby the matter detained in them. So that obſtructions, the cauſes of moſt diſeaſes, are naturally formed by bread thus abuſed.

I have ſeen a quantity of lime and chalk, in the proportion of one to ſix, extracted from this kind of bread; poſſibly the baker was not ſo expert at his craft as to conceal it; the larger granules were viſible enough: perhaps a more minute analyſis would have produced a much greater portion of theſe pernicious materials.

Nor are alum, lime and chalk the only pernicious mixtures employed by the artifice of bakers to abuſe the people with; there is another ingredient, which is more ſhocking to the heart, and if poſſible more hurtful to the health of mankind: it muſt ſtagger human belief; I ſhall only juſt mention it, to make it abhorred. It is averred by very credible authority, that ſacks of old ground bones are not unfrequently uſed by ſome of the bakers amongſt their other impurities, to increaſe the quantity, and injure the quality of flour and bread. The charnel houſes of the dead are raked to add filthineſs to the food of the living.

But that the miſchief done by the bakers may be more extenſive, theſe impurities, all, except alum, are not only mixed with our bread, but have a part in all other farinaceous foods, a very great part of the common victuals of our iſland.

iſland. But as the bulk and activity of theſe miſchievous ingredients are not, we ſuppoſe, in a reciprocal proportion, their effects muſt be vague, indeterminate, dangerous.

Acids (as alum) and alcalis (as chalk, lime, and burned bones) occurring, ferment with a great efferveſcence, ſo as to generate in the body various and intolerable pains, eſpecially in all arthretic, rheumatic and ſcorbutic cacochemies.

Alum, without lime or chalk, erodes, conſtipates, incruſts; lime and chalk, without alum, occaſion immeability to the juices, producing lethargies in old people, and convulſions in young: thus ſeparate, they are very hurtful; but united, they are eminently detrimental. Chalk and lime are ſingularly inimicable in a putrid alcaleſcent ſtate of the body; and alum is as little friendly to acidity and all diſorders of a crude nature: acidity and alcaleſcency are the two fountains ftom whence the lamentable ſtreams of moſt human maladies derive their origin.

As vitriol to the cholic; opium to an epilepſy; or bark to an aſthma; ſo is alum to prevalent acidities; ſo is lime to all inflammations; ſo is chalk to a putrid alcaleſcence.

We are not unaware, that all ſuch acid ſalts, as alum, ſpirit of nitre, &c. being mixed with abſorbents, cauſe an efferveſcence, as alcalis do, when mixed with them. Salt of tartar, ſpirit of urine, and ſpirit of hart's-horn, being mingled with alum, juice of lemon or vinegar, cauſe ſuch an efferveſcence as thoſe acids would do, if mix-

ed with chalk, ceruſe, crabs-eyes, &c. from which quality they obtained the name of alcalis; but we are perſuaded a few experiments will ſhew the impropriety of that name, and will evidently demonſtrate, that tho' they are called alcalis, they have no property common with them, but merely their effervescent quality, as is affirmed by Dr. Arbuthnot.

It is obſervable, that the frequent internal uſe of any corroſive ſtyptic, in time, contracts and ſhuts up the mouths of the ſmall alimentary tubes; and all tophaceous or chalky and teſtaceous ſubſtances abſorb and exhauſt the lixivial fluids, provided by nature to facilitate digeſtion; obtund acrimony; lubricate the veſſels, and conſtitute by their proportionate admixture an healthy nutrition; thereby preventing a due reſtoration to, and reparation of, the waſtes of the animal attrition: the one clogs and impedes the ocillatory vibrations of the ſolids; the other incraſſates the fluids; two bad conſequences, which are not only dependent upon, but coadjutants of, each other. To keep the blood in an healthy ſtate of tenuity, the ſolids muſt be ſtimulated to actuate and attenuate it, by more frequently impelling it upon the diviſions of the ſmall veſſels, with accelerated velocity; and in this caſe their vibrations ſhould be irritated, and not obtunded. Beſides, it is affirmed, and ſome think not without reaſon, that all tophaceous ingeſtæ collect and incruſt the folds of the ſtomach, like argyl in the wine veſſel, having mixed with the moſt prevalent humours in that organ, and thus ingender many chronic diſeaſes: and it is no ſecret that alum or chalk are ſingularly prejudicial in the ſtone or gravel.

This

This ſort of bread, or rather this morbiferous compound, dries up the lubricating juices, and impacts the glands which ſhould ſecrete the lixivial oil or pituite deſtined to ſoften and mollify the fæces, to cool and ſupple the inteſtines: the alum compacts and compreſſes their fibres, erodes and devellicates the fine membranes of the veſſels diſperſed thro' its fabric: the chalk abſorbs and dries up the juices, and calx adds fire and inflammation. We may ſuppoſe then that ſo many concurrent pernicious qualities in confederacy, will not be unable to generate violent obſtructions in the inteſtines and viſcera, which are pregnant, as is well known to phyſicians, of various diſeaſes; for coſtiveneſs is the fore-runner of an infinite number of maladies. Whenever the humours are obſtructed in their ideoſincratic circulation, they will ſoon find out other paſſages, and force their way thro' ſome unnatural channels: a fountain cannot more eaſily be ſtopped in the little than in the great world; it may be diverted thro' ſome other courſe, but if its original ſource be cloſed, it will inſtantly break forth ſome where elſe: hence it is that ſo many evils are conſequents of coſtiveneſs: few of the capital diſeaſes but are preceded by that habit: the humours impeded in their proper receivers urge their paſſage thro' erroneous channels, invading the tendereſt parts, which moſt eaſily give way to their impetuoſity. Hence come catarrhs, defluxions, convulſions, fevers, apoplexies, rheumatiſms, conſumptions, aſcites, anaſarcas, tymphanies, dropſies, aſthmas, and diabetes, with many other terrible diſeaſes. How frequent this ill-boding complaint is in this city, I leave every one to prove, who has eat of the city bread. The occaſion of this fore-runner of many mortal

diſeaſes, we muſt refer to the bakers. Phyſicians may attempt to redreſs the effects, but civil magiſtrates ought to prohibit the cauſe.

SECTION II.

Æquè pauperibus prodeſt, locupletibus æquè,
Neglectum, pueris ſenibuſque nocebit.

Horat. Epiſt.

IT is ſaid by Hippocrates, repeated by Galen, approved by reaſon, confirmed by experience, and undenied by the rational part of mankind; that health depends chiefly upon the choice of aliment: the wholſome nouriſhes; the bad diſorders and deſtroys. No food can promote the good purpoſes of nutrition, except ſuch as is well digeſted; that which is difficult of digeſtion impregnates with the ſeeds of many diſorders, but imparts no laudable nouriſhment. Hence it is the buſineſs of cookery to diminiſh the coheſion of the component parts of alimentary ſubſtances, and partially to digeſt them, before they are received into the ſtomach. To render them therefore the more compact and hard by preparative dreſſing, is an error of the moſt malignant conſequence with reſpect to health.

Bread in Latin is called *panis*, from whence the Italian *pané*, the Spaniſh *pan*, the French *pein*, all ſucceſſively derived from the Greek word πανι; very

very likely becauſe bread is the moſt univerſal food; for, as Lemery ſays, it agrees with *all* men at *all* ages and in *all* places. Corn is an univerſal produce, and wherever that is, bread is the ſtaple food. It is natural therefore to inquire, which is bad? and which is wholſome?

Bread contains much ſalt, oil, earth, water, and phlegm, ſo admirably combined, that each part of the analyſis ſerves as an attemperament and vehicle to the other. In proportion as any of theſe prevail, it is pronounced unpalatable and unwholſome; for oils turn rancid, and acid ſalts produce acidities, of which alum is a notorious proof. Subſtances are apt to turn upon the ſtomach, if they are difficultly digeſted. That bread which is the lighteſt, and moſt eaſily ſoluble in liquid, is the wholſomeſt, digeſted with greateſt facility, and ſooneſt converted to laudable nutrition. But reaſon perſuades, and experiments convince us, that lime and chalk are of qualities quite oppoſite to diſſolution; I mean extinct lime (that commonly uſed in bread,) and alum is properly applied to the fixing of colours and tanning of leather, which it effects by its powerful aſtringency. Lime is uſed, very properly uſed, for conſtringing and uniting materials deſigned to reſiſt the inclemency of ſeaſons, the rotations of time, which it performs in ſuch a manner as it ſeems rather than to cement, to petrefy with an hardneſs equal to ſtones, the very ſtones it unites. Is it not therefore very unlikely that the particles of flour, compreſſed by the one and conſtringed by the other, with the intervening chalk, muſt neceſſarily acquire not only an hardneſs and indiſſolubility ſuperior to digeſtion, but alſo heavineſs and coheſion equal to the petrefy-

ing, conſtringing, condenſing powers of thoſe admixtures? All thoſe properties therefore conjoined, make this ſort of bread the moſt unreaſonable to the ſenſe, unfit for the digeſtion, inimicable to the ſtomach, and improper to paſs thro' the bowels of man.

The principal powers of digeſtion are friction and fermentation, or an expanſion of that air which is inherent in matter. And when we conſider the vaſt force of that elaſtic fluid in its expanding ſtate, we ſhall not be ſurprized to find it diſunite and comminute every digeſtible conſiſtence, which the preſſure of the ſurrounding air obliges to cohere to its particles. Its elaſtic power effectuates this, and admirably contributes to the ſolution of the aliments in the ſtomach; for when that, which is contained in every part of the food, becomes rarified and expanded by the heat it meets with, it ſoon deſtroys the coheſion of the component particles, and aſſiſts in reducing it to a ſtate of fluidity, at the ſame time it is confined in the ſtomach, all the action of that member muſt be determined to the aliment, which it reduces to ſuch a degree of liquidity, as it may eaſily mix with the nutrimental fluids, enter the lacteals, and nouriſh the body; but if it is not digeſtible, then the ſtomach acquires heat and eroſion from every heterogeneal ingeſtæ; and if digeſtion be effected by the expanſion of the air globules contained in the food, (for this is ſure the principal power in that operation, as friction only produces heat, and heat rarifies the expanding air) and if the lixivium is abſorbed by lime and chalk, and the food more conſolidated and compacted by ſuch a corroſive acid as alum, it not only impriſons the air, ſo

that it cannot exert its needful force upon the food, but it alſo incruſts with a rough, piculated, cold, inert, and ſaline-acid ſcurf the external ſurface of the particles of the ingeſted matter with which it is mingled, ſo as to enable it to lacerate, wound, and inflame the fine folds of the ſtomach even at that time when it is heated with its labour, and by exerting its attrition upon the ſubſtances; and now whilſt it ſtands in more particular need of the cooling lixivial juices of the ſtomach, the glands that ſhould ſecrete them are dried up, and obſtructed with adheſive abſorbent chalk, or burned with fiery eroſive lime, which alſo ſtimulates, abrades, and deſtroys a part of the ſolids. By confining a ſmall quantity of lime, a ſhort time to any one part, it will then act as a cauſtic, and raiſe an eſcar: if it has ſuch power upon the external ſkin, what an eroſion and miſchief muſt attend its application to the delicate and tender fabric of the moſt ſenſible internal membranes?

Every ſubſtance which has properties and effects upon the animal which feeds on it ſo malignant as to impair the health, deſtroy the conſtitution, counteract nutrition, and induce diſorders, may ſurely be juſtly pronounced Poison: it is denominated from its effects. He therefore, who ſells ſuch lethiferous properties latent in the food he prepares for mankind, inſtead of that wholſome nouriſhing bread they aſk, pay for, and hope they may ſafely eat, is not leſs guilty of rapine and murder than the daring aſſaſſin, who, by a bold ſtab, hazards his own to take away the innocent life, that he may freely rifle the pockets of the unhappy, and ſatisfy the cravings of irriſiſtible hunger. Every crime is greater in proportion as the inducement is leſs. The one per-

petrates this horrid fact through a determined attention to the iniquitous dictates of atrocious avidity; the other hearkens to the preſſing call of hungry nature, aggravated perhaps by the exorbitant frauds of the baker; invaded and impelled by uncontroulable famine, he murders with a ſigh. —The other, thro' exceſſive avarice, actuated by artful inordinate concupiſcence of lucre, defrauds unrelenting at the vaſt expence of health, which he privily deſtroys; and the life he ruins by a moſt inſidious nefandous poiſon. Is the ſlow poiſon of the negro leſs deſerving that name, than that which diſpatches inſtantaneouſly? They are both from the ſame plant, the proportion the only diſſimilitude. Does not the highwayman deſerve the ignominious death he ſuffers? Does the baker merit impunity for a crime ſo enormouſly deviliſh, as the clandeſtine deſtruction of thouſands of lives? Sure a punition of condign ignominy is his due, who ſlays in the groſs, as well as the villain's who has but ſtilettoed one.

Quid refert, morbo, an furtis, periamve rapinis.
HOR.

That the phlogiſtic nature of inflammatory lime, the obſtructive drying quality of chalk, and the aſtringent, corroſive, acid properties of alum united (if in food) are attended with the many terrible effects and pernicious conſequences already mentioned, if taken for ſome time, is a truth as eaſily intelligible to men of conception and phyſical ſcience, as it is to a mathematician to comprehend the three angles of a triangle to be = to a ſemicircle. Our bakers have metamorphoſed the ſtaff that ſhould ſupport life, to a ſerpent that poiſons; and they communicate death with our daily bread; reverſing

verſing the miracles of heaven, which changed the ſtones into loaves, they make loaves into ſtones.

If even the robuſt conſtitution is ſo greatly endangered by this inſalutary compoſition, what evil, in the name of God, may we not expect to be by it conveyed to tender infants? They are delicate, feeble, naturally ſubject to many diſeaſes, and bread is the principal part of their food. Every one knows the difficulty of bringing up children in London, yet I believe no body will ſay it is a bad air. The diſorders to which young children are ſubject in this city, are chiefly ſuch as proceed from acidities. For any aceſſent food, or liquid, ſucceeding, preceding, or accompanying their natural nouriſhment, their mothers milk, curdles it inſtantly, prevents its digeſtion, or nutriment, and throws the babe into retching, and too often convulſive ſpaſms, which, in a ſhort period, terminate in death.

Beſides, if an acid acrimony prevails in the blood of the nurſe, then the tender infant ſuffers a twofold infelicity; for it is very material to have eſpecial regard to the diet of the creatures, whoſe milk even adults uſe, but more particularly if appointed for the uſe of young children.

Galen tells a ſtory of a friend's child of his which, having loſt its wholſome nurſe by a ſudden death, was put out to another; who was, in time of ſcarcity, forced to feed chiefly upon fruits, roots, acorn-bread, and ſuch ſorts of crude aceſſent food, by which the babe became infected with many nauſeous exulcerations, and cacochemic

chemic ſcrofulas. And Moffet ſays, that a certain hectic dieted upon the milk of a goat with admirable advantage, ſo long as ſhe fed upon his own paſture; but her food being changed by her removal to another field, where ſeveral noxious herbs grew, the conſumptive youth preſently died of a coliquative diarrhœa. A ſickly nurſe diſorders a healthy child; and a ſickly child is recovered by an healthy nurſe. Nay, it is even affirmed, and many think not without reaſon, that not only the qualities of body, but diſpoſition of mind, is imbibed with mother's milk; and that an ill-tempered woman will not only bear, but nurſe a fretful and choleric child.—Very careful then ought the fond parent to be to what breaſt he commits his darling, for by this one act he may intail transferable wretchedneſs upon it: its diſpoſition, as well as conſtitution, may be venomed and contaminated with the virulent acrimony of a poiſonous pap; or improved in both by the communicative virtues of a ſalubrious happy-tempered woman.

We ſhall not at all then be ſurpriſed to find this bread, which has been obſerved ſometimes to be of ſuch acidity, as even, like runnet, or the ranunculus flammeus minor, to coagulate the milk it was boiled in, attended with extremely bad conſequences to the tender ſtomachs of infants, which it is a common practice, in defect of nurſes, to feed with bread boiled in milk, or, in want of cow-milk, with pannados, which, when made of this kind of bread, are hard of digeſtion, and productive of all the long train of diſeaſes to which the little children of London are notoriouſly ſubject; ſuch as cholics, gripes, crudities, acid frigidities, rickets, convulſions. By this prepo-

prepoſterous diet of their ſubſtituted mothers, the wiſeſt precautions of our general mother nature are evidently fruſtrated; for, as was ſaid, if this food is unwholſome to the robuſt adult, ſurely the tender ſtomachs of infants muſt abhor the pernicious compound; nay, even the food, which, commonly taken by thoſe, is aſſimilated to laudable nouriſhment, ſuch as beef, potatoes, cheeſe, and all the farinaceous kind of baked and boiled victuals, would be nothing leſs than mortal poiſon to theſe; who not only faſtidiate it with a natural averſion and loathing, but are alſo, by the wiſe precautions of our common parent, who does not rely upon the diſcretion of mankind intirely in their diet, denied the power of maſtication and chewing it, from her kindly detention of the inſtruments, which ſhe is careful to provide time enough for that purpoſe; ſo likewiſe old age is a ſecond infancy, and equally favoured by a merciful reſumption of thoſe organs, when they are no longer uſeful, but might be dangerous when the temptation is prevalent. Though we have in infancy no teeth provided; though in old age they are retaken from us; yet both are bleſſings no leſs than their gift in the middle age. Milk is remarked to be extremely prejudicial to the teeth. Can we then enough venerate the wiſdom of providence, which produces thoſe organs after the milk-diet begins to be relinquiſhed, as no longer neceſſary, and indicates thereby the period when the infant may venture to eat ſtronger foods: ſo alſo the teeth are withdrawn and deceded, when that kind of diet becomes proper again. The language of providence is intelligible to the eye of wiſdom.

A very

A very ſhort enquiry then diſcovers to us the true reaſon, why parents generally find it ſo difficult to rear their children in London (and all the great cities of England where their bread muſt needs be as white as in town) though born in that air; and nature adapts every complexion in a ſingular manner to the place of its birth.—The African is healthy and robuſt beneath a vertical ſun; and the Laplander's health unimpaired by winters which freeze ſtrong ſpirits. The opake fogs of Arabia offend not its natives; and the malignant air of Scandaroon to foreigners is only fatal. The climate of Guinea is comfortable to its own children; and even the people of Borneo enjoy a lonegvity equal to that of other countries. This perſuades me that the air of a country naturally befriends its productions, as well animal as vegetable: but the air of London is far from being unwholſome to ſtrangers; and why then is it reputed deſtructive to its own infants? Their native air is ſo homogeneal and ſalutiferous to all people when diſeaſed whilſt abroad, even though in a climate celebrated for its ſalubrity, that the phyſician, though the laſt, oft finds the moſt happy reſource in preſcribing it; oft it gives honour to himſelf, and health and joy to the patient. The ſole reaſon of the difficulty of bringing up children in London and its precincts, may then be more juſtly charged to ſome malignant quality in the diet than the air of this metropolis; and the city-bread derives ſuch properties from its compoſition as produce the effects complained of. How can we account for the difficult rearing of children upon better principles? if they are coſtive, afflicted with acidities, crudities, gripes, cholics, convulſions, or fevers; it muſt be obſerved,

ſerved, that milk, flour, yeaſt, ſalt, compounded with acid alum, corroſive chalk, and inflammatory lime, with other impurities, are their chief aliments.

I have known ſome parents ſo careful, as not to ſuffer their children to eat the city-bread: they ſupplied its exigence with cakes baked on purpoſe, or biſcuit. Remarkable it is, that theſe children were vigorous, ſprightly, and in admirable health; whilſt the children of their regardleſs fellow-citizens are for the moſt part pale, puny, lingering, and ſickly. But to be more certain of the truth of theſe effects enſuing that cauſe; two children of apparently equal complexions, ſize, age, and ſtate of health, were fed, one with bread in its milk and with pannados; the little boy was ſoon coſtive, griped, ſubject to ſhiverings, tender, fretful, and troubled with cold crudities, 'till the help of medicines reſtored it to health, and refraining from bread preſerved it; he eat no bread for two months, except biſcuit or boiled wheat in his milk. The other, who was very well during his abſtinence from bread, had not eat it three weeks, but the ſtout roſy lad was changed to a feeble, meagre, diſeaſed, pale child. This may be depended upon, I am ready to prove it occaſionally. It cannot be wondered at, for animals of a more hardy kind have been deſtroyed by feeding *alone* upon this compound. A chicken ſoon dies with it; tho' in the country, where brown bread is uſed, they can have no finer nouriſhment. Nay, I have known a dog pined away with eating this unwholſome mixture.

The

The uſe of this bread ought particularly to be rejected in that nobleſt of public inſtitutions the foundling hoſpital, elſe it only ſerves to prevent the bloody iniquity of cruel natural parents in deſtroying the fruits of their reproachable pleaſures by ſudden murder, by reſerving them perhaps to a more tedious and unhappy one at the hand of the baker; elſe it will be only a ſcene of calamity, noiſomneſs, diſeaſes, and infection, tho' intended as an happy receptacle of the deſtitute and forlorn; not only to nurture the offspring of libidinous illegitimacy, but alſo to open its boſom to cheriſh the ſuperfluities in the families of induſtrious indigence, and thereby to recruit the city with uſeful inhabitants, our manufactories with diligent artizans, our fleets with brave ſeamen, and our army with grateful and courageous warriors.

It would be needleſs to adviſe the fond parents carefully to inſpect the bread that their children are fed with, and to prohibit them the aluminous; 'tis full of impregnating maladies to their tender nature; 'tis therefore Poison. Nor is the pregnant mother leſs injured by this bad bread; or the growing fœtus than the new-born infant.

Pannado is often a principal part of the food of the aged and the ſick; their digeſtion is delicate, and ſurely they cannot take a more proper ſuſtenance, provided it is made of wholſome bread: but if this dangerous compound is its baſis, then, inſtead of a light food, it is heavy; inſtead of a cooler, it inflames; it dries, when it ſhould moiſten and lubricate; and, in the place of a gentle aperient, it proves an aſtringent; in ſhort,

ſhort, inſtead of nouriſhing, it deſtroys: nor is it very ſtrange, for if noxious to the athletic conſtitution, 'tis to the feeble no leſs than mortal; it is unwholſome to all, and nouriſhes none. And as good bread converts to wholſome nutrition, and happily aſſimilates all ſorts of food to the ſame laudable purpoſe; ſo this bad bread debaſes to its worſt nature every kind of aliment it is mixed with, and ſtimulates their bad effects upon the ſtomach. Oil riſes in diſagreeable rancidities, and the ſaline parts become vituperated to a noxious crudity; it imparts acidity to the bile, which coagulates the chyle; and as thoſe two fountains of the blood are vitiated, that fluid contracts impurity, and the body is filled with diſeaſes, eſpecially our endemic ones of a ſcorbutic kind.

As therefore it is obſerved, that faſting kills by inducing an evil habit of the blood, rather than by diminiſhing it *; ſo the baker may be ſaid not only to poiſon, but to famiſh his fellow-citizens. In ſhort, ſo miſchievons and unwholſome this bread is, that one would almoſt think it introduced by the malice of perfidious enemies for the deſtruction of a people, rather than that even the moſt execrable avarice of impious men could invent and diſtribute this horrible compound: but poiſoning of fountains and proviſions, is no leſs againſt the laws of civilized nations, than the uſing of venomed weapons: let it therefore be prohibited amongſt ourſelves by the authority of civil magiſtracy.

* *Vid.* Haller's Phyſiology.

SECT.

SECTION III.

Before I go I'll rip the malady,
And let the venom flow before your eyes.

LEE.

IT is obſerved by travellers, that wherever there is plenty of good bread and water, the people are jolly, robuſt, and healthy; on the contrary, where theſe are bad, the inhabitants of the place are generally of meagre, unhealthy aſpect; thus they rather ſeem to attribute their appearance to the food they eat, than to the air they live in. Many cities have been depopulated, or infected with diſeaſes, from the neceſſities of ſiege or famine, which induced them to uſe theſe in an unwholſome ſtate. Recent are the accounts of camps, fortreſſes, and fleets, ſuffering more for want of good bread and water, than even by the ſword of the enemy.

A few ages ago the inhabitants of this metropolis were a freſh, healthy, robuſt, well-ſized race of people; now they do not reſemble the hoſtile nation they affect to imitate more in flimzy faſhions and mockery of manners, than in a pale, meagre complection, effeminate debility, delicate figure, and almoſt total degeneracy from their priſtinity; then able to ſtruggle with toils and encounter difficulties, now they are vituperated to domeſticity; the athletic conſtitution of their anceſtors is dwindled down and loſt in the puny tenerity of the modern habit, which

which is daily obnoxious to a long retinue of diſeaſes, almoſt unknown to their manly progenitors; dram-drinking, lazineſs and libidiniſm, in confederacy with this pernicious uſe of unwholſome bread, will, if the time to prevent it be neglected, with its degenerated people ſpeedily precipitate this city down the deſcent of perdition, and level her in her ruins, as ſhe once rivalled in renown, Perſepolis, Memphis, Thebes, Athens, or Rome.

Nor upon examination will the city appear to have been a greater loſer in the nature, than in the number of its inhabitants. A few years ago the people of this metropolis were computed at nearly 2000000 of ſouls, by the judicious calculation of Dr. Akenridge; we learn that their amount at preſent does not equal half that ſum. Several reaſons he advances as cauſes of ſo remarkable a decay; one occaſion of it he draws from the prevalency of celibacy; but it is hard to prove if our age differs from thoſe paſt in this reſpect: the increaſe of buſineſs in the northern parts of the kingdom, which keeps the people more at home there, is another argument he induces, but we ſuſpect no very valid one; for was that the caſe, the parts which ſent this ſupply muſt have undergone a very ſtrange viciſſitude; but for many years paſt they have not been unuſually populous, nor in that time have their manufactories been increaſed, nor has London decreaſed in its manufactories; on the contrary, many new ones have been eſtabliſhed there within theſe few years, tho' its people have ſo manifeſtly decreaſed. Dram-drinking is juſtly urged as a cauſe of this effect; for the doctor obſerves, it not only conveys miſchief to the pa-

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rents, but deſtruction to their children. But few are thoſe who drink drams, in compariſon to thoſe who eat the city bread. Numbers eſcape the unneceſſary liquid, but not many the ſubſtantial poiſon: nor is the latter leſs detrimental to the lives of infants than the former. On the happy production and health of their children, countries and towns depend for inhabitants; from theſe confluent fountains they derive their moſt valuable riches: whatever prevents or impedes the due courſe of their natural current, induces calamity, deſolation, and wretchedneſs upon that nation or city; like Egypt upon the Nile, whoſe annual overflowings diffuſe the exhilarations of plenty, ſatisfaction, joy, and feſtivity among the people.

Nor is the city of London, the ornament of the Britiſh nation, alone injured by the exquiſite villainy of fraudulent bakers: our navy, the ſtrength and defence of the kingdom, is I am perſuaded very greatly harmed by it. Seldom do any veſſels victual for long voyages in the ports where this pernicious bread is uſed, but they are obliged to take flour mixed up with chalk, whiting, and lime, and their bread derives a miſchievous whiteneſs from the ſame alcaleſcent ingredients. The diſeaſes chiefly incident to ſeafaring people moſt commonly proceed from putrid alcaleſcence, and are generally of the ſcorbutic kind; which cannot be wondered at if we remark, that no matters are more productive of ſuch diſeaſes than alcalis, of whoſe qualities the efferveſcent properties of thoſe ſubſtances, make us believe them at leaſt to participate. And it is very obſervable, that the ſhips victualled at Liverpool, Whitehaven, and other ports, and alſo

alſo the ſeamen of other countries, where fraud and diaboliciſm never employ theſe noxious admixtures in their flour and bread, even tho' they go upon the longeſt voyages, are very ſeldom ſubject to ſcorbutic cachochemies; to which our mariners are rendered obnoxious, rather by bad food than any other contingency; and their common unleavened bread alone inclines to alcaleſcency, even when unmixed with ſuch miſchievous matters; and the air in hot climates, with their much exerciſe, promotes that tendency to putrefaction in the animal fluid when vitiated by ſuch foods.

One might indeed have ſuppoſed, that if the avarice of bakers ſtimulated them to add mixtures which would increaſe the weight of their bread and the quantity of their flour, to defraud mankind of their honeſt property; conſcience, religion, patriotiſm, philanthropy, or common ſenſe, would at leaſt ſo far have influenced them, as to have witheld their hands from ſuch enormous attempts upon the lives of their fellow-citizens, compatriots, and defenders, by the admixture of deleterious qualities in their daily bread. They might continue to mix bean-meal with impunity; 'tis harmleſs: but to conceal that, they muſt needs reſtore a whiteneſs and tenuity to the flour, by tophaceous or aluminous ingredients, on purpoſe to give it a fraudulent weight. To remove a diſeaſe they poiſon the patient.

SECTION IV.

——— *Hoc placet,*
Noſtris erroribus addere crimen.

IF we aſk the bakers for what purpoſe they mix alum, lime, whiting, &c. their intereſt will not let you ſuppoſe, that it is to defraud the buyer in the weight of his bread; they therefore ſay, and perhaps ſometimes with truth, that thoſe admixtures make it knead, ferment, and appear fine, as it would not elſe do, if the flour or corn which it is made of happens to be damaged, or, as it is commonly called, unſound; a miſchief which it contracts from having been beaten to the earth, whilſt on the field, or wet in the ſhock, ſo that it is ſprouted; or if it has been badly ſtored, the corn then becomes cold, inert, and dead in the hand, it appears to the eye bereaved of its gloſſyneſs, gold colour, and tranſparency; having depoſited its natural fragor, 'tis muſty; the flour is obnoxious to the ſame detriment; it then becomes difficult to knead, its parts will not cohere in a tough viſcid paſte; it is yet adheſive and clammy to the hand, and of an unpleaſant colour; the bread comes to table wet, tho' burn'd; heavy, ſolid, black, yet mouldering to pieces; the upper cruſt oft parted or cloven from the crum, which ſeems like a ſettled fæces. This bread ſinks in water, and even when boiled in milk returns to lumps of dough, rather than diſſolves or abſorbs the liquid; it is vapid, obtuſe, and diſreliſhing in the mouth; upon the ſtomach it proves crude and indigeſtible; and finally, as the

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ſaponaceous balſamic parts are deſtroyed, their energy and coheſion annihilated, their electric, or, more vulgarly, fermenting principle gone, it not only becomes difficult to make into bread, but when made is extremely pernicious to health, and void of nouriſhment; for all food is obſerved to be more or leſs nouriſhing, according to its abundance or ſcarcity of oily, glutinous parts, and in proportion as the contexture of its particles reſembles thoſe of our bodies. From this particular it is, that good bread derives its wholſome and nutrimental virtues, and from a defect of theſe powers in the decayed or unſound flour, that the bread made of it acquires its many detrimental qualities.

In caſe of unſoundneſs in the flour then, the baker affirms that a little alum is a rare thing. Chalk does not more effectually reſtore its whiteneſs, or lime its requiſite dryneſs, than alum its kneadable toughneſs ſo completely, that he defies the art of man from diſcovering the bread to have been made of unſound flour; he quite covers the deception; by means of theſe ingredients he can impoſe upon the buyers, for wholſome and good, a pernicious kind of bread; for tho' a noxious ſubſtance may conceal the evil qualities of another by its admixture, it will not be ſuppoſed that both acquire a wholſome nature by their union, and depoſiting the malignant qualities, they ſeparately had, acquire virtues which neither of them was ſuppoſed to poſſeſs.

But if theſe mixtures are only employed to reſtore unſound flour, why are they now indiſcriminately uſed? The damaged and the perfect are both mixed with theſe ingredients, or the danger

of eating the former, which would be only accidental, would be more excuſable, as the latter would always be good. But as lime, chalk, whiting, ground bones, alum, &c. by their own additional bulk, conſiderably increaſe the weight of the bread, ſo by their dryneſs and abſorbency, they occaſion the flour, in the baker's phraſe, to knead well, or to require a much greater portion of water, and to retain it too, to make the bread tolerably moiſt, than unadulterated flour alone would do. There is a remarkable difference between the ſpecific gravities of honeſt good bread, and ſuch a compound, in a proportion much above the weight of the abuſive admixtures alone, as experiment will ſoon aſſure the curious; ſo that the buyer is not only injured in his health, but ſuffers from a pecuniary abuſe alſo, which is one ſtrong reaſon with bakers for the general uſe of thoſe miſchievous mixtures to both the ſound and damaged flour. Thus villainy and lucre continue a miſchief which was firſt diſcovered by accident, inconſideration, or ignorance; and, had not avarice availed itſelf of this method of perniciating the good flour by unwholſome mixtures, ſome method might doubtleſs have been diſcovered to reſtore the unſound, or, at leaſt, to prevent its ill effects; but the moſt lucrative, though the moſt pernicious, is practiſed, as if private gain ſuperſeded public utility. Poiſon is added to peſtilence; the fountain is venom'd to purify the water, elſe if wholſomeneſs could not be reſtored to the damaged flour, perhaps, at leaſt, it might, by ſalutary ingredients, be made not pernicious, when the exigence of neceſſity makes it requiſite to be uſed for human food, as indeed ſhould never happen among a well-governed people; unleſs it could, by ſome

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happy diſcovery, be reſtored or redreſſed for the uſing of damaged bread-flour; the mixing it with chalk, lime, and alum, and the vending of poiſon, ought equally to be prohibited, by the moſt ſevere decrees. It is the remark of a celebrated politician; *Univerſis debet principis ut ſalutem civitatis procuret; ſi ſit abſolutus ex proprio judicio, ſi legibus teneatur, ex legibus.*

PUFFEN. de Ju. Nat. & Gen.

The legiſlacy is the phyſician of the community; and, when a diſeaſe is grown dangerous, it muſt be encountered with medicines of a draſtic efficacy. Some vigorous exemplary penalty muſt be inflicted when abuſes and enormities are become ſo virulent, as to endanger the conſtitution. Does not this we ſpeak of impeach the power of every great man, ſcandalize the patience of every upright man, light up the indignation of every ſenſible man, and alarm the fears of every relative one? And ſurely, on the other hand, equal encouragements ought to ſtimulate the invention and induſtry; and equal gratuities to recompence the diſcoveries of the ingenious, in ſuch things as are not perhaps leſs uſeful to the preſervation of health, than many of thoſe profound ſecrets of empericiſm, which have been ſo amply rewarded for their boaſted power to reſtore it. I think it is Rhazes, or Avenzoar the Arab, who tells us of a certain city which was ſupplied with water from a neighbouring rivulet. The people were remarkably ſhort-lived, and the air of the place generally reputed moſt balefully unwholſome. A poor peaſant digging nigh the ſource of the ſtream, happened to diſcover a bed of a certain poiſonous mineral production, through which the water was

filtrated, and from which it drew very pernicious qualities. The phyſicians of the place examined it, found it to be as repreſented, and experiments convinced them of the lethiferous properties of the metallic ſtrata.—The courſe of the water was changed; the city became wholſome; its endemic maladies ceaſed; and the peaſant received an ample gratuity; and was moreover dignified with a title of the ſame import as *Conſervator civitatis.*

And Piſanellus tells us, that the natives of Sicily, who live in a hot climate, were formerly annually viſited by a very malignant kind of fever which was extremely fatal to thoſe iſlanders, till ſuch time as a certain perſon introduced the uſe of ice amongſt them, and brought them to relinquiſh an hurtful ſort of ſtrong liquors. After which, according to an exact account that was taken, a thouſand people leſs than before, died every year in the town of Meſſina only; and this occaſioned the common people there, ever after, to be as careful to lay in ſtores of ice againſt ſummer, as corn for the winter, that they might eſcape the diſeaſes to which they were formerly liable.

Such reſearches into the nature and properties of things, would much more uſefully, nor perhaps leſs agreeably, employ the diſquiſitions of minute philoſophy, than many of thoſe which prepoſterous ſophiſtry, or capricious curioſity, often engage her in; nay one might almoſt venture to ſay, more commendably too. And ſome men may be ſo illiterately unfaſhionable as to perſuade themſelves, that the perſon whoſe inquiries have found out a method of producing one

one additional grain of corn from the ear, more than it commonly yields, utilitates mankind more than he who can, from a life ſpent upon the ſubject, tell us the exact dimenſion, circuit, and weight of an ignis fatuus; or who can demonſtrate beyond denial that a ſpider works by mathematic ideas. He ſurely more deſerves an honourable epithet, who can, by his inquiries and ſtudy, contribute to feed the hungry, ſuppreſs diſeaſe, increaſe the people, or add to their comfort and health, than the ſhrewd wit who has enjoyed himſelf a whole age, in profoundly contemplating, whether a flea or a louſe deſtroys the greater portion of air. Let not phyſical inquiries loſe ſight of the good of mankind, leſt they expoſe their profeſſors to its deriſion. It is as eaſy to examine the nature of plants and of aliments, and might prove as entertaining, as to pore upon ſea-ſhells and butterflies. One ſuperior pleaſure I am ſure muſt prefer it in the opinion of every good man, ariſing from a *mens conſcia recti*, when he perceives his ſtudies employed to befriend his ſpecies, by a diligent inveſtigation of uſeful and ingenious enquiries. The other with a bluſh muſt review a life buſied in frivolous and trivial purſuits, tho' vainly dignified with ſo pompous a title as the love of virtú.

That Cecrops who taught the people of Greece to relinquiſh their unwholſome food, maſt and acorns, improved them ſo much in other arts, that they no more reſembled the beaſts in their manners than in their food. Triptolemus, who invented the plough, benefited mankind by that diſcovery, as much as the author of the Iliad by his ſtudy. The great emperor

emperor Fohi taught the Chineſe muſic, and inſtructed them in the arts of taylorſhip; and Chintong, who taught them medicine, improved their agriculture. So, that Hoangti, from whom they learned the humble feminine art of ſpinning and the uſe of wheel-carriages, informed them in the divine ſcience of aſtronomy. Their names are venerated, and immortal glory attends theſe heroes of antiquity. And whoever can diſcover a method to add fertility to the furrow, fruitfulneſs to the tree, who can increaſe the milk of the herd, or the wool of the flocks, or can find out a means to improve and meliorate our common food, or aſcertain the particular properties of a plant, merits the grateful praiſe of a people; he feeds the hungry, clothes the naked, heals the diſeaſed, and diffuſes ſtrength, gladneſs, and opulence over a country.

To attain ſuch noble purpoſes, the good of the whole muſt ſuperſede every ſelfiſh view: private intereſt is a ſacrifice which a patriot boſom loves to make to the public emolument: benevolence has no partial beams: 'tis the part of a miſer to lock up a treaſure which, like an angel, might go forth to bleſs mankind: and tho' a ſecret in a private poſſeſſion, urged to its utmoſt advantage, might prove a fountain of inexhauſtible lucre, a good heart diſdains to withhold it from its utmoſt ſcope of utility.

If then at any time the bread-corn proves to be unſound or damaged, if it muſt neceſſarily be uſed for human food, rather than to mix it with any noxious materials, let the baker, who has ſome ſhare of conſcience, add an admixture of fine barley meal to the unſound flour, in proportion

portion as it is more or leſs damaged; if a little finely-ground rice be added, it will not be the worſe for it. This method of reſtoring the flour, not only makes the bread fine, beautiful, and delicious, but wholſome and nutritious; it reſtores its coheſion of parts, ſupplies it with a freſh glutinity, and revives its extinguiſhed *ignea vis intus*, or fermenting quality; ſo that it kneads without alum, and riſes well in the oven. This remedy is of inconſiderable charge, or rather none at all; it is alſo procured with as much eaſe as the other bread-corn; and requires no particular art to apply it ſucceſsfully.

SECTION V.

HAVING ſaid enough of the bad bread of London; analized its component parts; expoſed its pernicious properties; mentioned the many miſchievous effects ſucceeding its uſe; the bad conſequences likely to enſue its continuance, upon all degrees of people in general, from the robuſt to the feeble, from infancy to old age: having exhorted its redreſs, and ſhewed the method: it may not be amiſs here to ſubjoin a few of the moſt accurate obſervations, which we have, from time to time, had opportunities of making upon the ſubject, as well here as in other parts of the world.

Good bread is not only the moſt univerſal, but alſo the moſt ſalutary of all human aliments; inſomuch that it has been thought, that a cruſt of bread alone, eat the firſt thing in the morning before

before exerciſe, is a ſpecific againſt many diſeaſes *; and a poultice of bread has been oft externally applied to very ſad maladies with marvellous ſucceſs. Nay, when we mention its various virtues, ſo numerous they are, we ſhall almoſt ſeem to pronounce contrarieties: it admirably comforts the ſtomach; befriends digeſtion; fortifies the ſolids; purifies the fluids; benevolates the nerves; reſtores ſtrength; and revigorates the whole human frame. It is found, by experience, to abſorb and carry away redundant humidity, and to moiſten, by its balſamic oilyneſs, prevailing ſiccity, by the ſame power as it cools in heats; and diffuſes a genial warmth through frigid and crude conſtitutions. It proves a ſtyptic without binding, and an aperient that never fluxes. It recruits the health with the nobleſt nutrition; and for the diſeaſed there is not a more excellent food. Good bread is the only meat of all others which never produces any bad effect: it reſtores a ſalubrious ideoſincracy to the perverted animal functions; felicitates nature, and comforts the nervous ſyſtem; relumines and vivifies the electrical principal which pervades thoſe tubes, and repleniſhes them as it decays; it corroborates and elevates to a noble vigor the corporeal, and animates the mental faculties with an exhilarating dawn of alacrity. It is remarkable that ſeamen, who have been reduced to the moſt deplorable extremity by a long unhealthy voyage, and the uſe of unwholſome bread, ſoon recover their former health, vigor, and ſpirits, if they happen for a few days only to meet with a plentiful ſupply of that moſt recruiting aliment in its perfection: an argument however

* A treatiſe on a cruſt of bread. By Dr. Robinſon.

deſpiſed

deſpiſed by ſome people, will have its weight with the experienced and judicious part of mankind. The benevolence of providence has improved, with many and admirable virtues, the utility of this moſt common of all human foods, in like manner as it has endued with many happy qualities, ſimple water, that general beverage of all his creatures: ſo that theſe great bleſſings are not only the moſt univerſally beſtowed, but are alſo the moſt wanted, and the moſt ſalubrious of all productions. It is obvious to remark, how emphatic the ancients are through all their writings, in praiſe of the virtues of bread. In the ſacred ſcriptures, it is commonly put in the place of all other foods, as if it comprized the good qualities of them all; and may perhaps have been one firſt-rate phyſical efficient (whatever the religious deſign and ultimate purpoſe of heaven might be) of the longevity of our antediluvian progenitors, whoſe principal food was bread, leguminous or farinaceous, with fruits and herbs. Certain it is, that the few among our compatriots, who have paſſed over the threſhold of a ſecond century, are noted to have made this ſubſtance their principal aliment, as is inſtanced in the lives of Parr, and one of theſe venerable ſeniors we have ſeen, who is arrived at the age of one hundred and fourteen; the chief of his food is eggs and bread of oatmeal. Old Jenkins lived, if we miſtake not, to one hundred ſixty-two, principally upon the ſame kind of victuals. The two laſt-mentioned were born in the palatine of Lancaſhire, which is not very celebrated for the moſt propitious air; their bread is moſtly made of oatmeal; and perhaps as many men have paſſed the age of an hundred in that diſtrict, as in one eighth part of the iſland beſides. And in Cheſhire,

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deſpiſed

deſpiſed by ſome people, will have its weight with the experienced and judicious part of mankind. The benevolence of providence has improved, with many and admirable virtues, the utility of this moſt common of all human foods, in like manner as it has endued with many happy qualities, ſimple water, that general beverage of all his creatures: ſo that theſe great bleſſings are not only the moſt univerſally beſtowed, but are alſo the moſt wanted, and the moſt ſalubrious of all productions. It is obvious to remark, how emphatic the ancients are through all their writings, in praiſe of the virtues of bread. In the ſacred ſcriptures, it is commonly put in the place of all other foods, as if it comprized the good qualities of them all; and may perhaps have been one firſt-rate phyſical efficient (whatever the religious deſign and ultimate purpoſe of heaven might be) of the longevity of our antediluvian progenitors, whoſe principal food was bread, leguminous or farinaceous, with fruits and herbs. Certain it is, that the few among our compatriots, who have paſſed over the threſhold of a ſecond century, are noted to have made this ſubſtance their principal aliment, as is inſtanced in the lives of Parr, and one of theſe venerable ſeniors we have ſeen, who is arrived at the age of one hundred and fourteen; the chief of his food is eggs and bread of oatmeal. Old Jenkins lived, if we miſtake not, to one hundred ſixty-two, principally upon the ſame kind of victuals. The two laſt-mentioned were born in the palatine of Lancaſhire, which is not very celebrated for the moſt propitious air; their bread is moſtly made of oatmeal; and perhaps as many men have paſſed the age of an hundred in that diſtrict, as in one eighth part of the iſland beſides. And in Cheſhire,

Cheſhire, that ſuccumbs to no other county in England for a ſtout race of hale, robuſt, jolly people, bread made of barley with a ſmall portion of wheat (which they call munk-corn) is their chief nouriſhment.—But this obſervation is not only verified by a few domeſtic ſingular ingular inſtances of particular provinces in our own iſle; the world through all its regions and countries ſupplies materials to ſtrengthen the foundation of this argument. The Banians of India, the Perſian prieſts, the Mandarins of China, the Circaſſians, and the Kalmuck Tartars, are all as remarkable for making bread almoſt ſolely their food, as famed for health and longevity. In ſhort, we cannot doubt of the many admirable virtues of good bread, ſince it is known, that no other food produces ſuch laudable chyle, or bile ſo excellent in its lixivial diſſolvent effects; and the nouriſhment it recruits nature with is of ſuch a noble ſort as to ſurpaſs every thing; by this means it diſſolves all corroſive oppilations and concreted qualities; digeſts other ſubſtances as an happy attemperament; purges down and ſhathes the miſchievous acrimonies of all hurtful matters, and reſtores the waſtes of attrition with the moſt permanent and ſalubrious renovation.

But when I ſpeak of good bread, we would not be miſunderſtood to mean the unleavened; it is accounted pernicious. Hippocrates excommunicates it as the moſt unwholſome of all human foods, and Galen ſubſcribes to his anathema.

The Flamines Diales were forbidden to eat a morſel of unleavened bread, or the leaven or meal alone;

alone; the reaſon † Plutarch tells us; "They "might not eat meal, becauſe it is an imperfect, "raw nouriſhment; neither being wheat, which "it was; nor bread, which it ſhould be; for "meal has loſt, which it had, the form of "grain; and wants, what it ſhould have, the "form of bread. They might not eat leaven, "becauſe it is the mother and daughter of cor-"ruption, ſouring all if too much, and diſtaſt-"ing all if it be too little. But when a juſt "proportion is kept between them both, leaven "corrects the meal's imperfection, and meal re-"ſiſteth the leaven's corruption, making a well-"reliſhed maſs called bread, which is juſtly "termed the ſtaff of life." Thus ſometimes phyſical precautions are veiled under religious inſtitutions. Unleavened bread is an alcali, which might be dangerous in warm climates, and where ſcurvies are endemic; the leavened bread is aſceſſent; they may be reciprocally good, properly eat in particular habits and diſeaſes. Thoſe troubled with ſcurvies ought carefully to avoid eating of the former, which is very hurtful in all acute diſeaſes, or thoſe of an epidemic ſort, which carry off at leaſt two thirds of mankind; and thoſe afflicted with cholics, rheumatiſms, and many other calamities proceeding from acrimonious acidities, ought as cautiouſly to abſtain from the latter.

Seamen who go upon long voyages ſuffer more by eating unleavened bread only, than the change of climates. This makes them, both in cold and hot regions, ſo very obnoxious to ſcurvies,

† Vide Moffet.

which

which poſſibly they would eſcape had they a good ſupply of freſh leaven'd bread. *Videpag.* 34.

Bread that is moderately leavened, is then the moſt univerſally wholſome of all others; this bread it is which, as Lemery ſays, is a nouriſhing, good food; it produces no ill effects if properly made, baked, and eat in a due proportion; it agrees at all times with all ages and all conſtitutions.

The beſt bread is that made of the flour of good, ſound wheat, all ground down together; the bran is neceſſary to make it wholſome, to which a proportion of barley meal, as one to ſixteen, may very uſefully be added; let this be well kneaden with the lighteſt, pure rain water, or if from fountains, it ſhould be purified;* let it be ſufficiently fermented with fine, ſweet yeſt or leaven: and laſtly, it ſhould be well baked with a moderate heat, in an oven heated with wood fire preferably to coals; it ought to be neither too hard nor too ſoft; it ſhould be, when eaten, neither very ſtale, nor warm from the oven. This bread will digeſt eaſily, and admirably nouriſh.

The pure flour, ſeparated from the bran, is glutinous, heavy, viſcid, aſtringent, and not ſo eaſily digeſtible as when mixed with the bran; the bran makes the bread light and very digeſtible, as the lixivial fluids more eaſily penetrate it, and render it leſs repugnant to the action of the ſtomach, and its own elaſtic air: bran contains a portion of farinaceous matter, leſs glutinous, but more oily than the flour, which is compoſed of parts that require ſuch mixtures to give it a

* Diſtillation, in this caſe, would be extremely uſeful.

ſapo-

ſaponaceous, balſamic, nutrimental quality; ſo the bran and leaven together make the bread more light than it would be without thoſe mixtures in the proportion of 18 to 23; and as it is more porous, and its fibres the more extended and finer, it becomes more ſubject to the action of the ſtomach; for by its diſuniting of the parts it opens paſſages to its inmoſt receſſes, capable of receiving the menſtruating fluids of the ſtomach, which thereby exert their diſſolvent energy on an enlarg'd ſurface, and facilitate the digeſtion, as an addition of ſand to a ſtiff ſoil makes it more eaſily penetrable to the radical fibres of the tender plants it produces; nor is this apparent from reaſon only, but from nature too; for tho' the chaff be eaſily ſeparated from the grain, how many proceſſes of painful induſtry does luxury employ to ſtrip the grain of its neceſſary covering the bran? So cloſely are they married of heaven, man ſhould not put them aſunder; as therefore bran and flour properly attemper each other, the ſaponaceous and the aſtringent qualities (each able to exert its uſe occaſionally, unallayed by the other) compoſe an homogeneal nutriment, and as nature has made ſo compact an union between them, ſo the uſe of this bread will ſoon convince the world of its ſuperior goodneſs and wholſomneſs.

Barley has for many ages been reputed extremely wholſome; it is particularly ſo in the removal of lingering cachexies and hectic fevers. we have known a phthyſis cur'd by a diet of barley bread and butter-milk, without the help of medicines; it is a balſamic febrifuge and vulnerary: indeed the univerſal uſe of this grain

phyſically, as in ptiſans and other pectoral teas, manifeſts the eſteem it holds in the opinion of all eminent phyſicians of all ages and countries, from Hippocrates the glory of Chios, to Heberden of England.

As barley is therefore ſo wholſome a food, and not indelicious, a ſmall admixture will be found, as experience has aſſured me, not only to make the bread cheaper, as pleaſant, nor leſs beautiful; but it will certainly make it more wholſome and nouriſhing, eſpecially when the wheat flour is the leaſt damaged.

Nor will it be found improper to fire the oven with wood, preferably to pit-coal, which contains a large portion of bituminous ſulphur, an enemy to fermentation: it hinders the bread from riſing properly; ſo that the bread baked with that ſort of fuel is frequently clammy and heavy: but the alcaline particles of wood promote the fermenting power in a ſmall degree, and a little attemper and volatilize the natural acidity of all farinaceous, baked victuals. Sulphur applied to wine veſſels prevents the effervescence of the muſt.

It is remarked, that the cruſt of well-baked bread is the moſt wholſome, and the eaſieſt of digeſtion, eſpecially to humid ſtomachs and cold; for it is the lighteſt part of the loaf, and the fæces or dregs of it always fly from the purific particles of fire, and fix upon that portion of the maſs which is leaſt baked; and alſo any noxious matters in the water, or other ingredients of its compoſition, by being expoſed on the ſurface of the

the loaf, are pierced and diſſolved by the volatile alcali of the wood fire, ſo as to change or entirely depoſite their malignancy.

Fine light water, of beautiful purity and delightful limpidity, without taſte, ſmell, or colour, ought to be as carefully procured as good corn, in the making of bread; for beſides that its impurity may contain inimicable partieles, it makes the food terrene, groſs, and unwholeſome.

Wherever the air is pure and ſerene, it is obſervable the fountain water is light, tranſparent, wholſome, and wherever ſuch water abounds the bread is excellent; thoſe places are reputed ſalutiferous, their inhabitants are generally healthy and long-lived, and thither the phyſician ſends the patients who have in vain run the diſagreeable gauntlet of medicine, and here they oft find an eaſy recovery. This needs not be inſiſted upon to any perſon who knows *Montpellier*, *Lyons*, or *Aix en Provence*; but it is more particularly evident at *Fraſcati* and *Naples*: each of theſe places is not more remarkable for a ponderous, ſerene air, or water that is vivid, light, cryſtalline, than for their admirable bread; it is ſurpriſingly fine, eaſy to diſſolve, excellently digeſtible, very delicious, wholſome, and nutritious: but this is particularly obſervable at *Piſa* in Italy; the air is ſerene, ſoft, ponderous, ſalubrious; their water, which is conveyed by an aqueduct of 5000 arches for ſeven miles from a branch of the Apennines, is exquiſite; their bread perfect: it is firm, light, brown, delicious, wholſome, and very nouriſhing; and more ſurpriſing things are not ſaid of the ſalutiferous, than of the prolifical virtues of that city: it is

credibly affirmed, that one of their buxom matrons produced five children at a birth; and in the time of the late grand duke, an annuity was ſettled upon another of theſe fertile dames, who was delivered at one time of ſeven live children: nor is this place leſs friendly to the producing of children, than to their health; they are ſtout, roſy, briſk, and hearty: and *Naples* is not more famed for its ſalubrity than its popularity.

On the contrary, where the air and water are imperfect, the bread is unwholſome, the people few, and diſeaſes endemic among them.

But the great and omnipotent argument againſt brown bread, is drawn from its coarſe, plebeian colour; the pleaſure of the eye ſuperſedes the delight of the palate, the ſatisfaction of the ſtomach, and the health of the whole body; to gratify the eye of luxury in the buyer, and to indulge the concupiſcence of lucre in the ſeller, availed of its additional villainous weight, it is, that the many detrimental ingredients we have expoſed, are uſed in the city bread; that it may be white, reaſon, health and equity, muſt each undergo a ſevere violation; to appear finer than it really is, it becomes pernicious; nay, thro' a moſt prepoſterous libidinity, they change to a deſtructive food a wholſome nutriment; the bleſſing of heaven becomes the bane of man, that we may indulge in the whimſical weakneſs of a vulgar error. Health is a conſtituent of beauty in its definition, ſo wholſomeneſs and goodneſs are conſtituents to the perfection of bread, or any other food; therefore the fine, light brown bread, as it is the moſt wholſome and delicious, muſt alſo be the moſt beautiful

and

and moſt eligible of all bread to people of reaſon and experience; and indeed what colour is ſo charming as the gloſſy tranſparency of the golden grain, of which no bread partakes ſo much as that we would fain recommend: in ſhort, if any be more beautiful or pleaſing, none is ſo wholſome, ſo nouriſhing, or delicious, as it is; I appeal to all who have eat it in its perfection, all thoſe whom luxury or fortune have not deprived of that moſt delicious and exquiſite food.

SECTION VI.

——— *Quid*
Conveniat nobis, rebuſque ſit utile noſtris. PERSIUS.

AS we have therefore in the precedent ſection ſpoken of the many virtues of good brown bread, and alſo the manner of making it; ſpecified the moſt wholſome ingredients; given ſome proper precautions with regard to its make, and obviated the objections to its uſe; we ſhall juſt beg to recommend its conſideration to the legiſlacy, who, it may be preſumed, will not reject as beneath the level of their concern, a thing of ſuch important moment. Though the indigent are oppreſſed by its exorbitant price, in ſuch times of artificial ſcarcity as they have juſt experienced, and yet continue to feel the effects of; and tho' they ſuffer very ſenſibly from the flagrant abuſes they receive in its unjuſt and ſcanty weight; yet theſe calamities may be much more eaſily borne by our magiſtrates, than others which are not leſs certain, tho' much more alarming.

The poor are injured in the ſmall ſize of their fraudulent loaves; but all ranks and ages of people, from the coronet to the car, from infan-

cy to old age, from the ſtar of dignified merit to the ticketed badge of laborious drudgery, are many ways injured by the abuſes of bakers; the man exalted with a magnificence of ſoul, energy of underſtanding, and fortified patriotic probity, even a Pitt or a Legge, the pillars may be taken away from the ſupport of their country, in common with the moſt vulgar plebeian. Theſe dearest poſſeſſions of a nation may be ſacrificed in their health or lives (as they have voluntarily voted their private retirement, and the endearments of domeſtic tranquility to the good of it) to the inſatiable chaſm of the impious avidity of aſſociated villainy; ſo that the nation is invaded at once in her glory and defence.

The dignity of the Roman empire, when at the zenith of its meridian effulgence, and when Rome was the metropolis of the globe, did not diſdain to attend to the wholſomeneſs and juſt weight of the bread of her people; as is remarkably manifeſt from the conſular ſtamp, ſtill very conſpicuous upon a loaf, which, tho' made in the reign of the emperor Trajan, is ſtill preſerved entire as it was found in the ſubterraneous ruins of the city Herculaneum, and now ſhewed as a curioſity among the other antiquities found in that repoſitory. It is indeed a very ſingular rarity: 'tis about the ſize of an *honeſt* half quartern loaf in London, which would not be leſs curious, or an wholſome loaf more uncommon, than this extraordinary antique, which has been 1650 odd years in the oven.

The city of Genoa is fed with bread from one common oven: the ſtate condeſcends to be the public baker; perhaps with other views than purely to ſuperintend the ſalubrity or cheapneſs of

of it; however it avails both thoſe good purpoſes, for the bread is honeſtly made of good flour, and ſold at a reaſonable price. Its ſcarce and impious weight defrauds not the buyer; its imputed dearneſs famiſhes not the hungry; nor has it malignant properties inductive of many diſeaſes on all ranks of people. The peaſant who tills the field, can afford to eat the fruit he has cultivated with the ſweat of his brow: the wholſome food inſpires him with freſh vigor; his health is excellent. You ſee the city crouded with a jolly race of hearty people; health, ſtrength, and ſpirit, the very nerves and ſinews, and life and ſoul of the public body, which excite alacrity, emulation, and exertion in each individual, are manifeſt in every part; and have changed a poor obſcure village of deſpicable fiſhermen, to a reſpectable republic, celebrated for opulence, and renowned for its majeſty of ſenators.

At Naples the price of bread is annually eſtabliſhed by one called, *L'Eletto del popolo*, or choſen by the people. I think the ſame approvable cuſtom is uſed at Orleans in France.

Would it miſbecome the legiſlator then by ſeverer laws to reduce to decorum the irregularities and enormities of an iniquitous combination; eſpecially when they are become ſo alarming as to endanger the lives, and impair the property of fellow-citizens? If laws be enacted let them be executed, elſe like the unwholſome bread we diſclaim they are uſeleſs in their intent, or prejudicial in their end; nor either preſerve, nouriſh, or ſtrengthen the public body. There is a decree amongſt the Perſians, condemning every baker to be baked in his own oven, who ſhall by

lucrative artifice abuſe the people, either through the compoſition or ſhort weight of the bread he ſells them. Few will think cruel or diſapprovable the rigorous punition which that wiſe empire has allotted to a crime of ſuch enormous atrocity, who conſider its ultimate nature attentively; nor will any one heſitate to accuſe the delinquent of homicide, rapine, and robbery. What but the moſt extreme concupiſcence of criminal lucre can engage men in ſo noxious a dereliction of all humanity, philanthropy, or patriotiſm? What can protect a legiſlacy from the reproach of ſupineneſs, or a moſt puſillanimated torpor for the commonweal; if, whilſt they ſhould ſuſtain and protect the people, they ſee them with unconcern velocitated down the precipice of ruin?

We ſhall not pretend to dictate laws to the legiſlacy, that may effectually redreſs all abuſes and impurities in the important article of bread, Many good ſtatutes have already been enacted to that purpoſe; I wiſh they were better obſerved and executed. Beſides it is not a matter of doubt, if our lawgivers, or, at leaſt, law-propoſers, are not nearly as numerous as the obſervers of laws. Nay, we are not certain, if their number be inferior to our payers of the national debt, a race of men often as unfortunate at ſatisfying their own creditors, as they are expert at diſcharging the debt of miniſterial contraction; inſomuch that one would almoſt be no leſs glad to have that decree of the Perſians relating to impious bakers, promulgated in our iſland, than the ſtatute of the old Locrians, which condemned every propoſer of a new law to the penalty of it, provided it met with rejection.

SEC-

SECTION VII.

Quid emptæ? parvo. Quanti ergo? octo aſſibus.
Eheu! HOR.

NOR is it in the quality alone of their bread and flour, that the bakers abuſe the people; as it has been obſerved before, that the addition of noxious ingredients conſiderably augments their gain, by increaſing the weight of their loaves, and giving them a whiteneſs that may conceal the impure mixtures they contain: yet, contrary to civil decrees, as rare it is to find them honeſt weight as wholſome conſiſtence; ſo that upon the whole, if we deduce an exact eſtimate of the firſt coſt of the loaf, from the ſum of every needful and fraudulent charge, and add one ſeventh of gain by ſcarce weight, to the baker's profit, we ſhall find upon a well-calculated average, that his lucre is not even ſatisfied with the clandeſtine appropriation of *one half* of the equitable property, for which he receives an equivalent conſideration, perhaps, from abuſed poverty and indigence, which his frauds irritate with more poignant calamity; for, like the naſtieſt kind of vermin, they prey moſt upon miſery, and grow fat from feeding upon the hungry and wretched more than upon the opulent, and, like the ſame vile breed of creatures, they devour the very body that feeds them.

We cannot help commiſerating the laborious indigent; he truly is afflicted in a manifold and very

very ſenſible manner, by the abuſes of fraudulent bakers; he is oppreſſed by the exorbitant price their crafts occaſion to be affixed upon bread of an unjuſt and ſcarce weight: and the quality of it; inſtead of reſtoring new energy to the evaneſcent ſpirit, ſtrength to his limbs, and a ſalubrious increment to every demand of nature, which perpetually decays thro' the attrition of labour, and the defluxions of animal œconomy; inſtead of food anſwering theſe good purpoſes, he pines away abuſed and contaminated with an abominable, morbiferous compound, which defeats the intent of hunger; it emaciates which ſhould nouriſh; which ſhould ſtrengthen, debilitates; and, in lieu of befriending health, preſerving alacrity and vigor, it engenders a ſad multitude of maladies upon the family and its dependence, ſo that he is no longer able to purchaſe by his labour the ſuſtenance which his children implore; the very bread he has eaten bereaves him of power to exert his induſtry, the only means thro' which he can buy this dear food.

We are even juſt now while writing theſe ſheets, alarmed with an account, that a confederacy of two hundred bakers have aſſembled to *conſult* upon the prices of bread, and it ſeems, to *reſolve* for the future to make no more houſhold bread, or that of a coarſer ſort, which is ſomewhat cheaper to poor families: it is ſuppoſed the bakers deſigns in this are not of any great benevolence towards the people; who, it ſeems, theſe men look upon as creatures they are entitled to feed as they ſhall pleaſe, and who have not authority or underſtanding enough to chooſe food for themſelves. Is this a compliment to human ſenſibility? Can ſo flagrant an inſult attack

tack the privileges, the common ſenſe of a people dignified with the name of INHABITANTS OF THE METROPOLIS OF GREAT BRITAIN? May they ſacrifice the health and property of a people to their avidity?

The people are not beaſts for ſacrifice. LEE.

Muſt the price of bread be determined by a circumventive combination of extortive men,

To whoſe integrity they muſt,
In ſpite of all their caution, truſt?

Shall the intereſted confederacy, whoſe gain has conſpired againſt the plenty of a country, influence the price of the food, which they ſo often impair in its weight? Or ſhall the very men, if I may dare to call them ſo, who have depopulated the city by their lethiferous mixtures of bread, ſhall they preſcribe the ſort the people ſhall eat? Have they power and authority to exert it, to famiſh and poiſon the people whenever their lucre is availed of the deſtruction they can make? Does the good of the community depend upon ſo futile a foundation as the honeſty of bakers, who, it is certain, by no means countenance ſuch a confidence? If that be the caſe, the deſolation of London is nigher at hand than we at firſt imagined.

The various artifices practiſed in the myſtery and craft of bakers are almoſt innumerable; their tricks to eſcape the penalties which ſtigmatize their lucrative villainy, to ſhun the imputation which characterizes its detection, are as infinite as ſecret; one of its more obvious frauds is, that of expoſing loaves of full and honeſt weight to the public view, and to vend amongſt

amongſt careleſs cuſtomers thoſe below the lawful ſtandard; that, ſhould the meſſengers of juſtice appear, the expence of bribery may not be requiſite to purchaſe the connivance of venality. Juſtice was anciently emblemed blind; ſhe is now too often made ſo, to ſerve the purpoſes of iniquity, as ſhe was formerly repreſented to ſhew her juſt impartiality. Very few people are ſo public-ſpirited as to weigh their bread, and execute the laws. Vid. p. 62 & 63 *infra.*

Thus a large quantity of lime, alum, chalk, ground bones, &c. added to a portion of ſalt, yeaſt and water, made up to a paſte, with a ſmall admixture of flour, when baked, paſſes for a loaf of bread; which we have generally found, upon an average, to want of weight from one to two ounces in ten; which will make the profit of bakers as exorbitant as we have mentioned above:* ſo that was a conſiderate man to ſee this at preſent, he would ſuſpect the tribe of bakers to be privately confederated with our public enemies, and that their venal iniquity was purchaſed to poiſon or famiſh the people, whoſe lives were ſet a price upon by a ſuborned conſpiracy of wicked avaricious men.

Some of theſe abuſers indeed may be ignorant of many of the bad effects the iniquities they perpetrate induce upon the people; but even thoſe may not need to be informed that they counteract ſtatutes by *them* no leſs than by fraudulent weight. Was not this the caſe, one may ſuppoſe, if the divine laws of God, and the civil decrees of their country, did not prevail over their avidity, the laws of nature would ſtop the courſe of their deſolating enormities, which alike involve themſelves and families in the dangers and miſchiefs

* Vid. p. 57. *antea.*

miſchiefs they prepare: we ſhall therefore pity the deluded wretches who appropriate calamities; whilſt we blame the deſigning villain, who ſcoffs at the terrors of thoſe tremendous damnations, which revenge robbery, deceit, and homicide; for both alike deceive themſelves; the pernicious, deteſtable race of vermin undermine the very granary they plunder for food: its ruin muſt inevitably accumulate them with deſtruction, or ſtarve them with famine, if they did not poiſon themſelves with the reſt of the people.

Accurſed is he that withholds bread from the hungry. * Yet the conſpiracy of bakers defrauds the poor of their juſt portion; and the exorbitant price their artifice occaſions to be fixed upon it, makes a food which the famiſhed man may long for in vain. He cannot pay for it; and ſurely he that privily poiſons mankind, and famiſhes them too, cannot eſcape a heavy damnation.

Is it leſs than blaſphemy againſt the moſt High, who is certainly more pleaſed to be the God of mercy and beneficence, than of vengeance and cruelty, to call his kind diſpenſations afflictions, and to diſgrace and vilify his moſt benign attributes with aſperſive epithets; to miſname his bleſſings, curſings; to reproach the plenty he ſends, with the appellation of famine; and to make the poor repine at ſcarcity, when he rains down abundance? Is not this to blaſpheme the benevolence of heaven? Yet certain it is, that at preſent the whole country has been bleſſed with plentiful harveſts; *the clouds have dropped fatneſs; the fountains of heaven have been ſet wide open upon our iſland; the fields have rejoiced they ſtood ſo thick with corn; the vallies have laughed and*

* The wiſe ſon of Sirach.

ſung;

ſung; and the little hills have clapt hands for joy at their abundance of grainage. Yet the preſent artificial ſcarcity is by the impious craft of corn-dealers, farmers, mealmen, and bakers, * who ſeem to have entered into a conſpiracy againſt heaven and the people, profanely and falſely charged upon providence.—They give the lye to almighty God, who ſpeaks through the progreſſions of nature. Theſe men tell us, there is a ſcarcity of corn, when it is manifeſt we have plentiful harveſts at home, large exportations from abroad, and vaſt ſtores of unuſed grain in the nation remaining from the crops of years paſt, as many of themſelves can ocularly demonſtrate; but like a kind of loathſome vermin, they grow fat in the dwellings of poverty and want: hence their lucre avails itſelf of factitious famine, and endeavours to create the dearth it preys upon; and indeed their combination has but too much power to exert its baleful effects, as recent inſtance demonſtrates. They ſeem to hold the reins of life or death, which they can let looſe upon a people as their avidity dictates, for the bread of the public is at their diſpoſal, and they, the butlers of providence, can give or withhold our victuals. A man that has the food of a kingdom in his hands, has more power than he who holds the ſcepter: the influence of bread more ſenſibly affects mankind, than that of regal authority, even under deſpotic governments, if we

* By the ſtatutes ſecond and third of Edward the ſixth, unrepealed, and now bearing force, paſſed A. D. 1548, it is enacted as follows:

"Foraſmuch as of late divers ſellers of victuals, not contented with moderate and reaſonable gain, but minding to have and take for their victuals ſo much as luſt them, have conſpired and covenanted together to ſell their victuals at unreaſonable prices, &c. For reformation thereof, it

we may credit ſome great politicians. Abuſes in the articles of bread and fruit once nearly occaſioned the deſtruction of *Naples*.

At a time when we are abuſed with an artificial ſcarcity, and feel the immediate effects of a dearth, it is ſomething ſtrange to hear of petitions deſiring permiſſion *to export corn*. But we ſhall not be ſurprized at theſe requeſts, when we underſtand, that theſe petitioners are the very merchants

" it is ordained and enacted by the king our ſovereign lord,
" the lords, and commons in this preſent parliament aſſem-
" bled, and by the authority of the ſame, that if any but-
" chers, brewers, bakers, poulterers, cooks, coſtermongers,
" or fruiterers, ſhall at any time after the firſt day of March
" next coming [viz. 1548] conſpire, covenant, promiſe,
" or make any oaths, that they ſhall not ſell their victuals
" at certain prices, &c. but at a certain price or rule, &c.
" ſhall forfeit for the firſt offence ten pounds to the king's
" highneſs, if he have ſufficient to pay the ſame, and do
" pay the ſame within ſix days after his conviction, or elſe
" ſhall ſuffer for the ſaid offence twenty days impriſonment,
" and ſhall only have bread and water for his ſuſtenance;
" and for the ſecond offence ſhall forfeit twenty pounds to
" the king, if he have ſufficient to pay the ſame, and do
" pay the ſame within ſix days after his conviction, or elſe
" ſhall ſuffer for the ſecond offence puniſhment of the pillo-
" ry; and for the third offence ſhall forfeit forty pounds to
" king, if he have ſufficient to pay the ſame, within ſix days
" next after his conviction, or elſe ſhall ſit on the pillory, and
" loſe one of his ears. And alſo ſhall at all times after that
" be taken as a man infamous, and his ſayings and depo-
" ſitions on oath not to be credited at any time in any mat-
" ters of judgment, &c. And it is farther ordained and
" enacted, by the authority aforeſaid, that all and ſingular
" juſtices of aſſize, juſtices of peace, mayors, bailiffs, and
" ſtewards of leets and courts, ſhall have power and autho-
" rity to enquire, hear, and determine all and ſingular of-
" fences committed againſt this ſtatute, and to puniſh, or
" cauſe to be puniſhed, the offender, according to the te-
" nor of this ſtatute."

For other acts of this kind, vid. Maitland's hiſtory of London, reign of Charles II.; and Kilburn's precedents, p. 152, 1ſt. Gul. & Mar. c. 12.

merchants who have imported grain in quantities, perhaps ſufficient to guard off the ſcarcity which fraud had prepared; but leſt its ſchemes ſhould prove abortive, its conſerters ſpoil the market of the imported grain, by means of their evil influence, and the ſtores they have ingroſſed; or even under ſell it among their fraternity, rather than not prejudice its ſale; which they exert every art in their power to prevent. Nor ſhall we wonder at their ſucceſs, if we reflect upon the concatenation which binds the confederacy together in their oppreſſive league; for by means of their ingroſſed ſtores, they command the markets; and, being in combination with the bakers, they monopolize the buyers. Beſides this, the miſchief of their foreſtallation has other abuſive indirections to favour their avidity; for it is credibly averred, that their artifice has not ſpared to avail itſelf by malpractices upon the ſalutary inſtitutions of the ſtate; for in the time of plentiful haveſts, by theſe men exportations of corn for neighbouring ports have been made upon bounty in ſuch quantities, as to turn the ſcales of the markets at home ſo conſiderably, that the very ſelf-ſame grain which they depoſited abroad in ſtores for that purpoſe, in caſe it was under the price there, was imported at home to an advantageous market †, with the addition of the go-

† Qui de pacto id agunt, ut res ſupera pretium quod ſummum nunc eſt in communi plures vendantur, aut vi aut fraude, impediunt ne major copia importetur, aut ideo merces coemunt, ut vendant pretior, quod temporis venditionis iniquum ſit, injuriam faciunt; atque eam reparare tenenter. GROTIUS.

"They who by contract ſo manage it, that things may "be ſold for more than the higheſt price they now "in common bear, or by force or fraud prevent the impor-"tation of greater plenty, are injurious, and ought to re-"pair the injury."

vernment's

vernment's premium upon importation; ſo that the deluded nation has made them the double gratuities on exportation and importation for perhaps the ſelf-ſame grain of its own production. This method of practice informs, why many thouſand quarters of wheat were detained in their granaries and ſtorehouſes unexpoſed to ſale, at a time when its price was made exorbitant, and the poor were unable to purchaſe daily bread; for had it been expoſed the price muſt have abated.

It is alſo reported, that the mills about London, and on the river, are engaged to this confederacy; and no corn is ground by them, but with the permiſſion or orders of the confederates; ſo that the oppreſſive ſchemes of this conſpired divan ſeem ſo deeply projected, combined, and intricate, and likewiſe ſo conſiſtently planned with preconſidered precautions ſubtending and promoting each other, that it is no wonder it is as hard to penetrate their artful deſigns, as to eſcape their baleful effects.

The farmer detains his corn in his ſtorehouſes, that the price may advance; the corn-dealer ingroſſes the market; the miller mixes the flour with abundance of whiting; and the baker does the ſame, with the addition of more detrimental ingredients; he alſo increaſes the price, and impairs the juſt weight of his bread, which ſoon occaſions all other proviſions to grow dearer in proportion; and, of courſe, a ſcarcity enſues, the very end theſe men aim at; for, contrary to all other animals of God's creation, even locuſts and caterpillars, theſe creatures grow fat in a famine,

mine, and a dearth is the very delight of their ſouls: they rejoice at a general calamity.

The farmers complain of ſcanty crops; the corn-dealers, meal-men, and millers, to ſcrew up the price, urge its neceſſity with concerted arguments; and the baker agrees, on certain lucrative terms, to buy it at a very dear rate, that a plauſible and apparently juſt, tho' very exorbitant valuation may be put upon his loaves; artificially and indirectly to augment the coſt of them to the buyers, as much as he uſed to defraud them by the addition of miſchievous ingredients, and impaired weight.

Mighty fruitful of reaſons for a certain ſcarcity theſe confederates are, and leave no method untried to inforce the neceſſity of an unavoidable dearth: if they can create only an ideal famine, it enables them to prey upon the people; like the filthy creatures which feed upon carcaſes in decay: canibals indeed let the body be dead before they devour it; but theſe ſavages of a more cruel and impetuous voracity, feaſt upon the living; nay they exceed the moſt barbaric ferocity; for the fierceſt negroes of Africa eat not the creatures which they have ſlain with venomed weapons; the ſerpent never bites the food he feeds upon; and the ſavage Indian only employs his dipt dart upon declared enemies in open battle; but our race of deſtroyers privily poiſon the food thro' which they prey upon us; as their infernal miſchief is therefore the more ſecret, it is the more perilous and unavoidable by the ſufferers, and under the cloak of privacy they eſcape the condign recompence of vindictive punition, and enjoy

enjoy a lucre accumulated by unparalelled iniquity, rapine, and brutality. The wiſe ſon of Sirach ſays, *The bread of the needy is their life, he that defrauds them of it is a man of blood.*

Locuſts and caterpillars are excuſable reptiles; hunger and inſtinct ſtimulate them, and no culpable avidity: if they devour the fruits of the earth, a real dearth enſues; but they are not ſo artful, nor indeed do we think them ſo malevolent by nature, if it was in their power, as to cauſe a factitious famine; or to perſuade us in the time of plenty there is a ſcarcity in the land.

But the lucre of theſe conſpirators avails itſelf of every opportunity of oppreſſion; and no alteration can happen in the weather, but they forge from it reaſons for advancing the price of our daily bread; even the faireſt proſpects of fertility ſeldom proportionably abate the charges of it; every ſhower extraordinary is a cauſe of the dearneſs of that food, and if it ſhould fail to rain for a month in the precincts of London, a dearth enſues all over the kingdom; every wind blows a famine, and a ſtorm cannot happen but it produces a ſcarcity.

What an affront is by theſe men put upon the benevolence of providence! would they at preſent perſuade us, he has given the fruits of the earth with a ſparing hand? 'Tis a violation and attack upon our ſenſes: not content to defraud men of their property, they deny the ocular demonſtrations to our reaſon; give the lie to our very ſenſes, and endeavour to rob heaven of our praiſe and gratitude. Would they have us complain for a famine and want in the time of abundance?

They miſname our bleſſings curſes, blaſpheming the munificence of heaven: theſe mercenary men aver, that we have in vain daily implored our daily bread: plenty is inexorable; the gates of mercy are ſhut againſt us, and aſſert that providence will not benevolate our obteſtations, divine compaſſion is impropitiable; that no deprecations can avert the calamity of ſcarcity; and if heaven ſends famine, themſelves ſend mortality and diſeaſes enough a conſcience to complete our miſery; the harpies which deſtroy our food, defile it too with their impurities; ſo when the people ſhould rejoice and acknowledge the immenſity of cœleſtial benevolence, they are overwhelmed with lamentation. A worſe than the Egyptian ſwarm of locuſts bereaves us of the fertility ſent from heaven; a worſe than Egyptian darkneſs permits it; this is truly a darkneſs that may be felt; and while the balm of health is breathed from the ſkies upon our iſland, theſe conſpirators depopulate like the deſtroying ſpirits, and diſpenſe maladies among the people: thus avidity is ſo diabolically impious as to deny the munificence of God, converting his bleſſings to calamities, his bounty to famine, and the ſalubrity of his diſpenſations to the poiſon of man: when he opens his hand to fill all things living with plenteouſneſs, ſhall this confederacy preſcribe limits to his bounty; rob the people of their joyous exultations in the aſſurance of a copious plenty, and heaven of their praiſe for it, declaring war againſt God and man, nay, and contrary to all laws of hoſtility, fighting with venomed weapons?

To prevent abuſes of corn-dealers, flour-men, &c. from ingroſſing, and of farmers from detaining their grain from the markets with a view

to advance its price, perhaps a decree might be enacted, commanding, that whenever corn arrives at 7s. per buſhel, † no perſon ſhall poſſeſs above a certain ſpecified proportionate quantity; the reſt to be ſold, or elſe depoſited in public granaries appropriated for that purpoſe, where it ſhall be diſtributed to the poor at the price it firſt coſt: this method would effectually put an end to ſuch ſcarcities as are forged by combinations, from engroſſing, detention, and monopoly, which in our iſland have ſeldom any other than a factitious origin.

Every man upon earth is entitled to a portion of that food which is given by providence impartially to all mankind; why then ſhould the iniquity of lucre be permitted to deny to each their equitable ſhare? No man can juſtify the monopoly of thoſe bleſſings which proceed from the univerſal munificence of heaven's uncircumſcribed bounty, but he muſt irritate the enmity of that power, which is jealous of the leaſt infringement of its attributes.

The millers enable themſelves by the clandeſtine admixture of pernicious impurities with it, undetected, to appropriate much larger portions of the flour they grind, than their equitable tolls, which are indeed very ſufficient pay for their labour, when corn bears a moderate price, but when it is very dear their gains are unmerciful and exorbitant.

As theſe frauds are equally detrimental to the property and health of the people with many of thoſe already exhibited, they ſtand in equal need of redreſs; which, if we are not deceived,

† As ſince the writing of theſe ſheets, we find was partly the caſe in the time of king Edward VI. *Vide* Maitland's hiſtory of London.

might be effectuated by a very ſimple and eaſy method.

Provided our authority might propitiate regard, we would then recommend to the public, ſuch a kind of ſteel * hand-mills, as might be conſtructed for the uſe of families, that each might grind their own flour, for bread and other purpoſes: the many advantages derived from theſe œconomical engines are ſcarce numerable; every houſe would thereby avoid the miſchiefs introduced by unwholſome bread, and adulterated flour; for they might procure corn that was good; and the many impoſitions in weight and meaſure eſcaped thereby, would more than amply repay the charge and trouble of theſe utenſils, which beſides would be uſeful in other reſpects, eſpecially to thoſe people who keep horſes; for one peck of ground corn nouriſhes one of thoſe valuable creatures as much as a buſhel of whole grain, of which not more than one fourth part is digeſted, and of courſe no more than that quantity converted to aliment; nor will theſe contrivances appear leſs practicable than they would be uſeful, amongſt the iſlanders here, or than they are in other parts of the world, where they are contrived by mechanics much inferior to the Britiſh at promoting the utility of their works of art and ingenuity. In Calabria and Sicily moſt families grind their own grain, and in Sardinia the ſame uſance prevails; few houſes are not provided with an aukward ſtone or wooden engine for grinding of corn; but the opportunities which expoſe

* The ſociety for encouraging arts and manufactures, have offered rewards for the invention of ſuch mills as ſhall be conſtructed of the moſt uſeful and cheapeſt faſhion, as are here recommended.

us to the frauds and artifices of millers, and the pernicious abuſes of bakers, which would alſo be eſcaped by the proviſion of hand-mills, makes them infinitely more neceſſary and deſirable among us in London, than they can poſſibly be in any other part of the world. If theſe mills were introduced, the poor would not be oppreſſed by artificial ſcarcities and defective weights; and all ranks of people injured by the lucrative admixture of morbiferous ingredients with their common food; the city would repopulate; health, vigor, and ſpirit revive among the people.

CONCLUSION.

PErhaps theſe ſheets may excite ſome diſreliſh, as containing too general a charge. Some good people will be apt to ſay, we ſhould not condemn in the groſs, the innocent and the guilty.

As ſorry ſhould we be to hurt the name of an honeſt man, as to ſpare the delinquent: our pen is neither pointed at any particular, nor aimed at the whole; it is guilt alone we would wound; and the morbid part we have deſigned to dilate and probe. The more faithful domeſtics may indeed have received a ſhot or two of that directed at the rapacious vermin, that defile and pilfer our proviſions; yet themſelves will, in the end, be availed by the extermination of the felons, in common with their lords and maſters; let not then the conſcious of juſtice think themſelves hurt by reproof levelled at the iniquitous: to appropriate cenſure is to ſollicit ſuſpicion, and

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to participate the condemnation. Touch the electric rod, we blaze with imputation, as tho' under its immediate influence: there are ſome drugs which affect by only handling.

But as for the guilty, let the expoſure of their crimes, and the many enormous miſchiefs they produce, excite in them honeſt reflections; and, whilſt we diſcharge the duties of our own conſcience, let it ſtimulate theirs to a juſt ſenſibility, and arouze in them ſome regard for the laws of God, of man, or of nature. We would either perſuade them to relinquiſh their iniquities, or compel them to it by ſharpening the vigilance of juſtice; branding the criminal, pointing him out to the eye of the law, and giving out the alarm to every man, to guard againſt the ſtigmatized convict. Who would buy bread from the hand that is ſeared with R. T.? It is equally dangerous plunging an arm into a receſs of vipers, another ſort of vermin whoſe venomous teeth have alſo gnawed their way into the world, though the very ſides of their mother; ſo the tribe whoſe crimes we detect advance their lucre, by defrauding and poiſoning the people.

To prevent theſe abuſes was the ſole deſign of writing theſe papers; as, therefore, in executing our purpoſe, we were bribed by no gain, ſo were we biaſſed by no partiality, but towards the juſt. Our only aim, is to reſcue poverty from the jaws of artificial famine; infancy from untimely death; all ranks of men from frauds and diſeaſes; and this metropolis from contumacy, and that deſolation which ſeems to approach with long and quick ſtrides. Happy ſhould we think it, if the ſacrifice of our deareſt poſſeſſion could avert the danger; but we already ſee the city once ſo populous, depopulate

populate daily; once ſo plentiful, pining for bread*; once ſo renowned for a ſtout race of people, decayed to an hoſpital of diſtempered invalids. What ſenſible man can forbear to contemplate the latent efficients of ſuch deplorable, too obvious effects? What good man can withold indignation, when he is convinced that they are the baleful produce of a ſecret confederacy?

We hope therefore with all reaſonable men, and are ſure that with all public-ſpirited ones, our cenſure will not be accuſed of any unjuſtifiable ſeverity or wanton invective; and amongſt the generality, we perſuade ourſelves, that none will condemn our charge upon the bakers as too heavy, who ever found their loaves too light; nor any think our pen dipt too deep in gall, who remembers the virulent impurities mix'd with their bread; but will rather be apt to allot them a larger ſhare of reproach; and even allow them the honeſt portion themſelves merit, tho' they withold it from others, who would not ſo willingly reſign their juſt property.

Confident we are, that the preſent exigence of a piece to this purpoſe, and the haſte it demanded, may have betrayed its author into ſome inaccuracies of ſtile, incoherencies of arrangement and diſpoſition, or repetition, which, at a glance, may ſeem needleſs; ſome modes of diction too may have eſcaped him, which may be cenſured for their novelty; and it was his aim rather to ſpeak with the ſincerity of truth, than to embelliſh with the formality of ornamental regularity; and he has been more careful to make

* This was the caſe a ſhort time ago, and it continues at preſent (Sept. 2, 1757) much dearer than there is any juſt reaſon to countenance.

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uſe of ſuch words as aptly expreſſed his conception, than to adopt the more explanatory periphraſis, that he might not appear too didactic to the intelligent, by becoming a little more eaſy to the generality of mankind; in ſhort, elegance of compoſition is ſuperſeded by the occaſional expedition he thought requiſite; and the public utility he was deſirous to vindicate: we therefore hope, that every one who reads theſe papers will comprehend enough, to make him circumſpect and careful what bread he eats, and to learn from them how to avoid abuſes, either in its weight or quality. As in this we have only diſcharged the commands of conſcience, and the duty of a good citizen, we perſuade ourſelves the manner will ſcandalize the ſenſe of none but the bad.

Was every individual of the people to think himſelf appointed as a centinel over the utility and good of the community he participates, as far as the influence of his ſphere might admit, what happineſs would enſue? Then would no culpable ſelf-intereſt affect miniſterial or legiſlative integrity; no private views unedge the ſpirit of military or naval virtú; no lucrative arts would impair medicinal properties, or perniciate the wholſome neceſſaries of human life with the deceptions of admixed, morbiferous qualities; every individual would be the guardian and protector of his compatriots: the brewer would not hear his conſcience reproach him with mixing vitriol to purify, or intoxicants, to impart apparent but detrimental ſtrength to the common drink he ſells; the butcher would diſdain to uſe linſeed cakes to puff up with a cadaverous fatneſs, chalk to give whiteneſs, or foul breath to add a deceptive beauty on the meat he expoſes to ſale; the wine-vault would receive no more

more copperas, or miſchievous aſperants; the ſellers of tea would not heighten the nature of that herb, alone malignant, in our climate, with Terra Japonica; our culinary veſſels would not poiſon with the arſenical virulence fuſed in their tinning; the ſugar-boilers would abhor to endanger the internal uſe of their refined ſweets, by the impoſition of a ſpecies of rats-bane, to give them a fine, but exceſſively dangerous ſparkle: then would there be no diſtillers of fiery corn-ſpirits; no ſelfiſh corn-dealers, flour-men, farmers, or millers, conſpired with bakers, to create factitious famines, oppreſs the people in the artificial ſcarcity of it, and deſtroy them thro' the impious admixture of poiſonous qualities in the ſalutary common food of mankind; plenty would take place, mutual confidence revive, health, vigor, and noble alacrity would kindle a fine emulation amongſt the Britiſh metropolitans, and animate them with the ſame glorious ſpirit of exertion, which dignified the annals of their renowned progenitors.

The E N D.

THE END.